# ENSV Inspection Transmittal Summary Report

**Media:**
RCRA CONTRACTO

**Inspection Type:**
CEI

**Inspection Date:**
08/03/2016

**Preliminary SNC Findings:**

**Transmittal Date:**
10/4/2016

**NOV / NOPV / NOPF:**
No

**Inspector:**
BAH CONTRACTOR BAH CONTRACTOR

OCT 04 2016

**Facility Name:**
Andersons

**Address:**
2717 Port Neal Circle
Sergeant Bluff
IA
51054

**ID Number:**
IAR000007310

**Activity Number:**

**MM Participationg Progams:**

**Federal Activity:**
phosphatic fertilizer mfg

**Federal Facility:**
No

**Potential EJ:**
No

| SBREFA Provided: | Security Handout Provided: | MM Screening Completed: | EMS ISO 14001: | Compliance Officer: |
|---|---|---|---|---|
| Yes | Yes | Yes | No | BETH KOESTERER |

**Selection Criteria 1:**
IA LQG

**Selection Criteria 2:**

**ACS Code:**
RCRA02

**Inspection Findings:**

**Target Quality:**
Good - CESQG who had a major fire in January 2015. Ensuing clean-up pushed them into LQG for 2015.

RCRA

554950

REPORT OF RCRA COMPLIANCE EVALUATION INSPECTION

AT

**ANDERSONS SERGEANT BLUFF PLANT**
2717 Port Neal Circle
Sergeant Bluff, IA 51054
(712) 943-3983

EPA RCRA ID No. IAR000007310

ON

August 03, 2016

BY

Booz Allen Hamilton

FOR

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 7
Environmental Sciences & Technology Division

## INTRODUCTION

At the request of the Environmental Sciences & Technology Division (ENST) and the Environmental Field Compliance Branch (EFCB) of the U.S. Environmental Protection Agency (EPA) Region 7, Booz Allen Hamilton (Booz Allen) conducted a Resource Conservation and Recovery Act (RCRA) Compliance Evaluation Inspection (CEI) on August 03, 2016 at Andersons Sergeant Bluff Plant (Anderson) located in Sergeant Bluff, Iowa. The CEI was conducted under the authority of Section 3007(a) of RCRA, as amended. Booz Allen gathered information and data necessary for the EPA to determine compliance with applicable regulatory and statutory requirements. During the CEI it was discovered that Anderson currently generates less than 100 kilograms (220 pounds) of hazardous waste per calendar month. At this rate, Anderson is currently operating as a conditionally exempt small quantity generator (CESQG) of hazardous waste. Anderson is also operating as a small quantity handler (SQH) of universal waste accumulating less than 5,000 kilograms (11,000 pounds) of universal waste at any time, and a generator of used oil. The CEI was conducted as a level B Multimedia Screening Inspection, and the *Region 7 Multimedia Screening Checklist* is included as Attachment 1.

Anderson was last inspected on March 11, 2010 by an EPA contractor. A Notice of Preliminary Findings (NOPF) was left with the facility containing the following citation.

- Failure to label a used oil container with the words "Used Oil" [40 CFR §279.22(c)].

## PARTICIPANTS

The following persons participated in the CEI. A copy of the business cards obtained from the facility representatives during the CEI are included in Attachment 2.

**Facility Representatives, Anderson:**

| Name | Title | E-mail/fax | Phone |
|---|---|---|---|
| Shawn Turner | Operations Manager | shawn_turner@andersonsinc.com fax: 712-943-3982 | (712) 943-3983 |
| Rick Jackson | Maintenance Supervisor | rickey_jackson@andersonsinc.com fax: 712-943-3982 | (712) 943-3983 |
| Mark Braunesreither | Chemical Process Engineer | Mark_braunesreither@andersonsinc.com fax: 605-217-2379 | (605) 217-2384 |
| Tracy Morris | Technical Manager | Tracy_morris@andersonsinc.com fax not obtained | (605) 217-2376 |
| Matt Anderson | Intern | Email and fax not obtained | Phone not obtained |
| Andy Miller | Electrician | Email and fax not obtained | Phone not obtained |
| Melody Russo (Entry and Exit Briefing by phone) | Environmental Health & Safety Manager | Email and fax not obtained | Phone not obtained |
| Douglas Douthitt (Exit Briefing only) | Director AG Specialty Operations | Douglas_douthitt@andersonsinc.com fax not obtained | (605) 217-2029 |

**EPA Representative, Booz Allen:**

| Name | Title | E-mail/fax | Phone |
|---|---|---|---|
| Clifford A. Nelles | Environmental Specialist | nelles_clifford@ne.bah.com fax (816) 448-3801 | (816) 448-3254 |

## INSPECTION PROCEDURE

I arrived at Anderson at approximately 0750 hours on August 03, 2016 to conduct the visual reconnaissance. The visual reconnaissance was conducted to identify and document potential areas of concern from the adjacent roadways. I identified no environmental issues or areas of concern during this preliminary examination.

At approximately 0755 hours, I approached the scale house and identified myself to the operator. I asked to speak with Mr. Shawn Turner who was listed on the pre CEI file review as the site contact. The scale operator explained that Mr. Turner was not in that day. I then asked the scale operator who handled environmental when Mr. Turner was not available. He contacted Mr. Rick Jackson who met me approximately five minutes later. After showing my credential letter and explaining the purpose and the scope of the CEI to Mr. Jackson, then escorted me to a lunchroom. Mr. Jackson informed me that Mr. Turner was coming in to participate in the CEI. Mr. Turner along with Messrs. Braunesreither and Anderson arrived approximately 10 minutes

later. I introduced myself to Messrs. Braunesreither, Turner and Anderson, and then proceeded to conduct the entry briefing with Messrs. Braunesreither, Turner, Jackson and Anderson, and Ms Russo by telephone.

During the entry briefing, I presented my EPA credential letter and business card to Messrs. Braunesreither, Turner, Jackson, and Anderson. I also presented to Messrs. Braunesreither, Turner, Jackson and Anderson a letter and business card from the EPA Task Order Contracting Officer's Representative (TOCOR), Mr. Gary Witkovski.

I presented Messrs. Braunesreither, Turner, Jackson and Anderson with a copy of RCRA §3007(a) (stipulating hazardous waste inspection authority) and a copy of 42 US.C. 1001/1002 (requiring the provision of truthful and accurate information and documentation). These documents were read by Messrs. Braunesreither, Turner, Jackson and Anderson prior to proceeding with the CEI. I then explained the EPA policy regarding the collection of confidential business information (CBI) to Messrs. Braunesreither, Turner, Jackson and Anderson. I stated that, at the conclusion of the CEI, they would be presented with the EPA *Confidentiality Notice*. At that time, a CBI claim could or could not be made for any or all of the information collected during the CEI.

During the entry briefing Ms. Russo explained that she was in Ohio for a conference and that all of the documentation was in her office. I gave Ms. Russo a list of documents that I would need to look at and she stated that she would contact Messrs. Morris and Douthitt to retrieve the documents for me.

The CEI consisted of a discussion of facility operations, waste generation and waste management practices; review of pertinent records; visual inspection; and an exit briefing. Mr. Turner acted as the official facility representative during the CEI, and accompanied me during the visual inspection. Messrs. Braunesreither, Jackson and Anderson also accompanied us during the inspection. Mr. Morris joined us approximately halfway through the visual inspection.

I completed the CEI and summarized my findings and recommendations on August 03, 2016 with Messrs. Braunesreither, Turner, Douthitt, Morris, Anderson, and Ms. Russo (by telephone). Based upon the initial observations, **I did not issue a Notice of Preliminary Findings (NOPF) to Anderson at the conclusion of the CEI.**

During the exit briefing, Mr. Turner acknowledged receipt of the Confidentiality Notice (Attachment 3) with his signature. Mr. Turner read and signed the Confidentiality Notice indicating no confidential business information had been provided during the CEI. Mr. Turner acknowledged receipt of a Receipt for Documents and Samples (Attachment 4) with his signature. A total of four (4) photographs were taken during the CEI, all of which are included in Attachment 5.

## FINDINGS AND OBSERVATIONS

### Facility Operations

The facility has been operating at its current location since 1989. The facility consists of nine, rectangular-shaped buildings totaling approximately 57,564 square feet on approximately 28 acres. Nulex purchased the property in 1993 and sold it to Andersons in May 2015. Andersons

employs approximately 18 full-time personnel, who work one shift (0600–1700), Monday through Friday. According to Mr. Turner, Andersons manufactures zinc-based fertilizer and anhydrous ammonia for use in agricultural operations. Manufacturing is performed by batch mixing various chemicals in the Andersons Process Area. Three of the main chemicals used in the production process are Caustic Potash (D002), Caustic Soda (D002), and Anhydrous Ammonia. Copies of the Safety Data Sheets (SDS) for the three chemicals are included as Attachments 6 through 8 respectively. Finished product is shipped offsite in bulk. Andersons also filters its production residuals to reclaim usable product, which is re-introduced into the manufacturing process. Andersons's primary North American Industrial Classification System (NAICS) codes are 325314 [Fertilizer (Mixing Only) Manufacturing], and 325312 (Phosphatic Fertilizer Manufacturing).

**Facility Status**

The Hazardous Waste Site Info Verification Report for Inspector (Attachment 9) indicates that Anderson is registered with EPA, under EPA ID IAR000007310, as a small quantity generator (SQG) of hazardous waste. During the CEI, I determined Anderson's hazardous waste generation rate through interviews with facility personnel and a review of hazardous waste manifests. On January 10, 2015 the facility suffered a major fire. The fire and ensuing cleanup and disposal of hazardous waste is why the facility is registered as a SQG of hazardous waste. The first shipment of hazardous waste from the fire occurred on February 14, 2015. A copy of the manifest and Waste Profile for the first shipment of hazardous waste as a result of the fire and the ensuing clean-up is included as Attachment 10. The manifest and Land Disposal Restriction (LDR) from the last shipment of hazardous waste from the fire and clean up dated October 14, 2015 is included as Attachment 11. As a result of the fire clean-up Andersons filed a 2015 Biennial Report (Attachment 12). During the clean-up Andersons shipped off a total of 17 hazardous waste shipments totaling 2,494,468 pounds (per the 2015 Biennial Report). Since then, the only hazardous waste generated by Anderson are aerosol cans (D001) and waste lamps (D009), the waste lamps are managed as universal waste, per 40 CFR §273. As such, I determined that Anderson is currently operating as a conditionally exempt small quantity generator (CESQG) of hazardous waste. I also determined through interviews with facility personnel, visual observations, and waste shipment records (e.g., invoices), that Anderson is currently operating as a small quantity handler (SQH) of universal waste and a generator of used oil.

Following the CEI, I amended the RCRA Handler Information Report to reflect Anderson's current facility information. Specifically, I revised the information to: Types of Regulated Activity: CESQG and SQH of universal waste and used oil generator. I also deleted the D002, D018, and D040 hazardous waste codes from the Hazardous Waste Handled.

**Facility Waste Streams**

The following is a Waste Stream and Waste Handling Table for Anderson. The table describes the major waste streams generated on-site, waste management practices, and off-site treatment, storage, and disposal. A description of the major waste streams and management practices is also found in the *CEI Worksheets and Checklists* (Attachment 13).

| Waste Stream and Waste Handling Table<br>Andersons–Sergeant Bluff, IA | | | | | |
|---|---|---|---|---|---|
| **Name of Waste Stream** | **Hazardous Determination** | **Generating Process** | **Estimated Generation Rate** | **On-Site Management** | **Off-Site Management** |
| 1) Spent Lamps | Hazardous (D009); facility manages as universal waste per 40 CFR §273 | Facility maintenance | Approximately four lamps per year. (Facility is currently relamping with light emitting diode (LED) lamps | Accumulated in fiberboard universal waste lamps containers | Picked up by Safety-Kleen for recycling |
| 2) Used Oil | Facility manages as used oil, per 40 CFR §279 | Generated from the maintenance of Genie Boom and Bobcat | Approximately two gallons per month | Stored in 250-gallon used oil storage tank | Picked up by Jebro, Inc., for recycling |
| 3) Aerosol Cans | Hazardous (D001) by product/process knowledge | Facility and equipment maintenance | Approximately 5 cans per year (based on interview) | Accumulated in a 30-gallon hazardous waste container | Has not been disposed of yet |
| 4) Used Oil Filters | Facility manages as used oil, per 40 CFR §279 | Generated from the maintenance of Genie Boom and Bobcat | Approximately 1 used oil filter per year | Stored in 55-gallon used oil storage container | Picked up by Jebro, Inc., for recycling |
| 5) General Trash | Nonhazardous by product/process knowledge | Office and General Refuse in facility | Unknown | Various containers throughout the facility | Picked up by Gill Hauling for disposal at Gill Landfill in Jackson, NE |

**Visual Inspection**

The manufacturing processes and facility maintenance activities generate the solid, universal, and hazardous wastes listed in the Waste Stream and Waste Handling Table above. During the CEI, the generation and accumulation areas associated with these wastes were visually inspected. A copy of the facility map obtained during the CEI is included as Attachment 14.

In the Maintenance Shop I observed a container for aerosol cans (Attachment 5, Photo 1). The 30-gallon container is labeled "Hazardous Waste", holds approximately 15 empty aerosol cans, and closed, the facility is CESQG and is managing as a hazardous waste. At the time of the CEI the aerosol cans had not been disposed of.

Outside of the Northeast corner of the Main Production Building I observed a used oil storage tank (Attachment 5, Photo 2). The 250 gallon used oil storage tank is labeled "Used Oil", and holds approximately 125 gallons of used oil. I asked Mr. Turner how the used oil was generated. He stated that the used oil is generated from the maintenance of facility machinery and equipment (Genie Boom and Bobcat industrial trucks). I asked Mr. Turner how the used oil filters are managed. He stated that the used oil filters are punctured and hot drained, then put into a used oil storage container for pick-up by Jebro Oil of Sioux City, Iowa for recycling. There are no used oil filters in storage at the time of the CEI. I asked Mr. Turner how long it has been since the last used oil pick-up. He stated that it has been at least five years since a pick-up of used oil by Jebro Oil.

I asked Mr. Turner if the facility has any universal waste. He stated that the only universal waste that they have is universal waste lamps. Outside of the scale house I was introduced to Mr. Miller. I provided Mr. Miller with a copy of 42 U.S.C. 1001/1002, which he read before proceeding with the CEI. I asked Mr. Miller how the facility was managing the waste lamps during the conversion over to LED lighting. He stated that when a light fixture is replaced the still usable lamps are set aside and used as a replacement when a lamp is spent. I asked Mr. Miller what he did with the spent lamps. He stated that the spent lamps were managed as universal waste and that they were stored in a shed next to the scale office. Next to the scale office I observed a universal waste lamps accumulation container (Attachment 5, Photos 3 and 4). The container of four foot waste lamps is labeled "Waste Lamps", closed, and dated August 24, 2015. I advised Mr. Turner that the one year limit for universal waste was about to expire. The universal waste lamps container holds approximately 25 green-tipped nonhazardous waste lamps, and 11 hazardous universal waste lamps. An invoice from Safety-Kleen for the last pick-up of universal waste lamps dated May 24, 2016 is included as Attachment 15.

**Records**

On August 03, 2016, I reviewed the following facility records:

- SDS for Caustic Potash (Attachment 6)
- SDS for Caustic Soda (Attachment 7)
- SDS for Anhydrous Ammonia (Attachment 8)

- Manifests, Waste Profiles, and LDRs from August 02, 2013 through August 02, 2016. Manifest and Waste Profile from a hazardous waste shipment dated February 14, 2015, and a Manifest and LDR for a hazardous waste shipment dated October 14, 2015 are Attachment 10 and Attachment 11
- 2015 Biennial Report (Attachment 12)
- Invoice from Safety-Kleen for a Universal Waste Lamps pick-up dated May 24, 2016 (Attachment 15)
- National Pollution Discharge Elimination System (NPDES) stormwater permit (Attachment 16)
- Emergency and Hazardous Chemical Inventory Tier II Report (Attachment 17)
- Spill Prevention Control and Countermeasures Plan (SPCC) (Attachment 18)

Over the past three years (August 2013 through August 2016), Anderson has initiated seventeen hazardous waste shipments. I reviewed all seventeen manifests during the CEI. I noted no deficiencies in the manifests and LDRs. Copies of the manifests and LDRs for shipments on February 14, 2015 and October 14, 2015 are included as Attachments 7 and 8.

I asked Mr. Morris if Anderson filed a 2015 Biennial Report as a result of the fire. He stated that they did and provided a copy which is included as Attachment 12.

I asked Mr. Morris if Anderson has a National Pollutant Discharge Elimination System (NPDES) wastewater permit. He stated that they did and provided a copy which is included as Attachment 16.

I asked Mr. Morris if Anderson filed a Tier II Emergency and Hazardous Chemical Inventory for 2015. He provided a copy that is included as Attachment 17.

I asked Mr. Morris if Anderson has an SPCC Plan. He stated that they do. A copy of the engineer's certification is included as Attachment 18.

On August 03, 2016, I conducted an exit interview with Messrs. Braunesreither, Turner, Douthitt, Morris, Anderson, and Ms. Russo (by telephone). I explained the findings and observations noted during the CEI, and the regulations pertaining to each. Additionally, I provided Mr. Turner with copies of the following materials:

- Copy of RCRA §3007(a)
- Copy of 42 U.S.C. 1001/1002
- EPA *Notification of Regulated Waste Activity*
- EPA *Publications for Small Business*
- EPA Information Sheet: *Commercial Motor Vehicle Transportation System Security & Safety-CMV Transportation Security Planning*
- EPA Homeland Security Bulletin: *US EPA Region 7, December 2001, Security Awareness for Agricultural/Industrial Facilities, Pipelines, Transporters, Utilities, Warehouses of Chemicals*
- EPA *Managing your Hazardous Waste, a Guide for Small Business*

- EPA Used Oil Management Standards handout
- EPA Fact Sheet: *Managing Used Oil, Advice for Small Business*
- EPA Environmental Fact Sheet: *Properly Managing Used Oil Filters*
- EPA Universal Waste website printout
- EPA Supplemental Information for Small Businesses Subject to a U.S. EPA Enforcement Action
- EPA Office of Enforcement and Compliance Assurance Information Sheet: US EPA Small Business Resources handout
- EPA Industry Sector Notebooks handout
- EPA RCRA Online Reference Guide
- EPA National Compliance Assistance Clearinghouse pamphlet
- EPA Innovative Solutions to your Environmental Challenges pamphlet
- EPA Compliance Assistance Centers handout
- Iowa Department of Natural Resources Used Oil Transporters and Processors Directory
- Iowa Department of Natural Resources Iowa Waste Exchange handout and pamphlet
- Iowa Department of Natural Resources Pollution Prevention Services pamphlet
- Iowa Department of Natural Resources Pollution Prevention Services folder
- Iowa Department of Economic Development *Iowa Environmental Guide for Business*
- Iowa Waste Reduction Center On-Site Review Program pamphlet
- Pollution Engineering article *10 Common Questions for Waste Generators*

Before exiting the facility, I referred to the EPA TOCOR's contact information letter, which was presented to Messrs. Braunesreither, Turner, Jackson and Anderson during the entry briefing. I encouraged Messrs. Braunesreither, Turner, Jackson and Anderson to contact the EPA with any questions or comments regarding the CEI or any environmental management questions.

Due to the size of the facility, I did not attempt to photograph the facility from public roadways at the conclusion of the CEI. An aerial photograph (Google Earth imagery) of the facility was downloaded and is included as Attachment 19.

**SUMMARY**

Through a review of current operations and interviews with facility personnel, I determined that Anderson generates less than 220 pounds of hazardous waste per month. As such, Anderson is currently operating as a CESQG of hazardous waste. Anderson is also operating as a SQH of universal waste and a used oil generator.

**I did not issue an NOPF to Anderson at the conclusion of the CEI.**

Other than items specifically noted in the narrative, I observed no additional issues. However, further review by EPA might change or add to my findings.

Clifford A. Nelles

Clifford A. Nelles

Date: 09/28/2016

ATTACHMENTS

1: Region 7 Multimedia Screening Checklist (2 pages)
2: Copies of Facility Representatives' Business Cards (1 page)
3: Copy of the EPA Confidentiality Notice (1 page)
4: Copy of the EPA Receipt for Documents and Samples (1 page)
5: Photographic Documentation (3 pages)
6: Copy of SDS for Caustic Potash (8 pages)
7: Copy of SDS for Caustic Soda (13 pages)
8: Copy of SDS for Anhydrous Ammonia (12 pages)
9: Copy of Hazardous Waste Site Info Verification Report for Inspector (2 pages)
10: Copy of Manifest and Waste Profile for a Hazardous Waste Shipment dated February 14, 2015 (4 pages)
11: Copy of Manifest and LDR for a Hazardous Waste Shipment dated October 14, 2015 (2 pages)
12: Copy of 2015 Biennial Report (8 pages)
13: CEI Worksheets and Checklists (18 pages)
14: Copy of Site Map (1 page)
15: Copy of Invoice from Safety-Kleen for a Universal Waste Lamps pick-up dated May 24, 2016 (1 page)
16: Copy of National Pollution Discharge Elimination System (NPDES) stormwater Permit (1 page)
17: Copy of Tier II Emergency and Hazardous Chemical Inventory for 2015 (11 pages)
18: Copy of Engineers Certification of Spill Prevention Control and Countermeasures Plan (1 page)
19: Copy of Google Earth Image of the Anderson Facility (1 page)

Forward To: EJ ☐ EPCRA / RMP / TSCA ☒ CWA ☐ Wetlands ☐ UIC ☐ PWS ☐ CAA / CFC ☐ RCRA ☐ UST ☐ SPCC ☐

# REGION VII MULTIMEDIA SCREENING CHECKLIST

Facility Name: ANDERSONS SERGEANT BLUFF PLANT
Facility Ownership: THE ANDERSONS
Street: 2717 PORT NEAL CIRCLE
City: SERGEANT BLUFF State: IA Zip: 51054
Phone: 712-781-0259 Facility Contact: SHAWN TURNER
Number of Employees: 18 Work Hours/Shifts 0600-1700 M-F Facility Subject to OSHA regulations Yes ☒ No ☐

Inspector CLIFFORD ALAN NELLES
Primary Media: RCRA
Inspector Phone Ext.: 816-448-3254
Date: 08/03/2016
SIC/NAICS Code 325314, 325312

Main facility activity, major process chemical(s) & description: FERTILIZER MANUFACTURER - ZINC BASED AND PHOSPHATE

(**Check all that apply**): painting/coating (water-based ☐, solvent-based ☐), printing ☐, reacting ☐ , formulating ☒, distilling ☐, water treatment ☐, refrigeration ☐, manufacturing ☒, parts washers/degreasing (water-based ☐, halogenated-based ☐, non-halogenated-based ☐), combustion (boiler, furnaces, oxidizers) ☐ plating (chrome ☐ , other_____).

**ENVIRONMENTAL JUSTICE ( Note: Forward to EJ if a concern is identified during your inspection)**

1. Is the facility located in an apparent low income area (e.g., with many abandoned and dilapidated properties)? No ☒ (stop) Yes ☐
   If yes, is facility less then 1000 feet from nearest routinely occupied property (house, school, etc.)? No ☐ (stop) Yes ☐ ***Forward to EJ***

**EMERGENCY PLANNING & COMMUNITY RIGHT TO KNOW ACT (EPCRA) & TOXIC SUBSTANCE CONTROL ACT (TSCA)**

1. Did facility file a Tier II report with fire department, Local & State Emergency Planning Committee? Yes ☒ No ☐ ***Forward to EPCRA***
2. Did facility manufacture, import, or process (formulate, blend, package) >25,000 lbs of a chemical or >100 lbs of a Persistent Bioaccumulative Toxin (lead, mercury, or polycyclic aromatic compounds) at any time over the last 5 years? No ☒ (stop) Yes ☐ ***Forward to EPCRA***
3. Has the facility: ***If any box in question 3 is marked - Forward to EPCRA***
   a. Stored ≥500 lbs of ammonia ☒, ≥100 lbs of chlorine ☐, or ≥10,000 lbs of an industrial chemical ☐, at any time over the last 2 years? ☒
   b. Stored ≥10,000 lbs of pressurized flammable material (propane, methane, butane, pentane, etc.) at any time over the last 2 years? ☐
   c. Used ≥10,000 lbs of ammonia ☐, chlorine ☐, halogenated solvents ☐, solvent-based paints ☐, or solvents ☐, or nitrated compound, over the last calendar year? ☐
   d. Generated ≥ one half pound of metal dusts, fumes, or metal turnings, over the last calendar year? ☐
4. Does the facility have any oil filled electrical equipment No ☒ (stop) Yes ☐ ***Forward to TSCA and ask*** Has facility tested oil filled equipment to determine PCB content; No ☐ Yes ☐ number containing PCBs greater than 50 ppm _____ and percent of all equipment tested _____. Is equipment leaking (including wet or weeping equipment)? No ☐ Yes ☐ – ***Get Photo***

**CLEAN WATER ACT (CWA) - National Pollution Discharge Elimination System (NPDES), Industrial Pretreatment, Storm Water, & Wetlands**

1. Does the facility discharge any wastewater to storm sewers, surface water, or the land? No ☒ (stop) Yes ☐
   If yes, are all wastewater discharges permitted? Yes ☐ No ☐ ***Forward to CWA***
2. Does the facility have process wastewaters that are discharged to a city POTW (Publicly Owned Treatment Works)? No ☒ (stop) Yes ☐
   If yes, are the discharges permitted by: State? ☐ , City? ☐ – If yes, Stop here. No ☐ ***Forward to CWA***
   If yes, does the city have a state or EPA approved pretreatment program? Yes ☐ No or Don't Know ☐ ***Forward to CWA***
3. During rainfall events, can storm water carry pollutants from manufacturing, processing, storage, disposal, shipping and receiving areas, or from construction sites >1 acre, to storm sewers or surface water? No ☒ (stop) Yes ☐
   If yes, does the facility have an NPDES permit for these storm water discharges? Yes ☐ No ☐ ***Forward to CWA***
4. Did you see any wastewater discharges not identified by the facility? No ☒ (stop) Yes ☐ - Identify location, time, appearance of discharge: _____(***Get Photo***) ***Forward to CWA***
5. Does the facility have any wetland areas (e.g. streams, ponds, or temporarily wet areas)? No ☒ (stop) Yes ☐
   If yes, have any wetland areas been dredged, filled, channelized, dammed, or had gravel removed from them within the last 5 years?
   No ☐ (stop) Yes ☐ - Identify location and timeframe_____ (***Get Photo***) ***FWD to Wetlands***

**SAFE DRINKING WATER ACT (SDWA) - Underground Injection Control (UIC) & Public Water System (PWS)**

1. Does facility discharge any liquids to the subsurface (septic systems, disposal wells, cesspools, etc.)? No ☒ (stop) Yes ☐ ***Forward to UIC***
   If yes, do these liquid wastes consist of sanitary wastewater only? Yes ☐ No ☐
2. Does facility provide drinking water to 25 people or more from its own source (private well, pond, etc)? No ☒ (stop) Yes ☐ ***Forward to PWS***
   If yes, does the facility test or monitor its drinking water in order to comply with state regulations? Yes ☐ No ☐

**CLEAN AIR ACT (CAA) and CFCs**

1. Do you see any dense, non-steam, smoke or dust emissions leaving the facility property? No ☒ Yes ☐ ***Forward to CAA***
   Source_____ (***Get Photo***)
2. Does the facility have any new air pollution emitting equipment that was constructed or installed in the past 5 years? No ☒ (stop) Yes ☐
   If yes, is equipment permitted? Yes ☐ No ☐ ***Forward to CAA*** *Describe:*_____
   _____
3. Does the facility have any cooling units that contain >50 lbs of refrigerant? No ☒ (stop) Yes ☐ ***Forward to CFC***
   If yes, are these units: Self-serviced? ☐ Contract Serviced? ☐ - Service Company:_____
4. Does the facility have a refrigeration process that contains more than 10,000 lbs of ammonia ? No ☒ (stop) Yes ☐ ***Forward to EPCRA/RMP***
5. Does the facility service motor vehicle air conditioning systems? No ☒ (stop) Yes ☐ ***Forward to CFC***

**RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) and UNDERGROUND STORAGE TANKS (UST)**

1. Does the facility generate more than 30-gallons (220 lbs./100kg) of hazardous waste per month or at any one time? No ☒ (stop) Yes ☐
   If yes, does facility have an EPA Hazardous Waste Identification Number? Yes ☐ (stop) No ☐ ***Forward to RCRA***
2. Is hazardous waste treated ☐ , stored >90-days ☐, burned ☐ , land filled ☐ , put in surface impoundments ☐ or waste piles ☐ ?
   No ☒ (stop) Yes ☐ If yes, is the facility permitted for above described activity? Yes ☐ No ☐ ***Forward to RCRA***
3. Did you see or does the facility have any large quantities of materials **that the facility claims to be non-hazardous waste material** (>10 drums, roll-offs, waste piles, etc. – exclude clean office trash, cardboard, & packaging type wastes)? No ☒ (stop) Yes ☐

| **Material Claimed To Be Non-Hazardous** | **How does the facility know these wastes are non-hazardous?** |
|---|---|
| _____ | Testing, industry or manuf. info.., MSDS, etc. ☐ ; None available ☐ ***Forward to RCRA*** |
| _____ | Testing, industry or manuf. info.., MSDS, etc. ☐ ; None available ☐ ***Forward to RCRA*** |
| _____ | Testing, industry or manuf. info.., MSDS, etc. ☐ ; None available ☐ ***Forward to RCRA*** |
| _____ | Testing, industry or manuf. info.., MSDS, etc. ☐ ; None available ☐ ***Forward to RCRA*** |
| _____ | Testing, industry or manuf. info.., MSDS, etc. ☐ ; None available ☐ ***Forward to RCRA*** |

4. Did you see any leaking hazardous waste containers, drums, or tanks? No ☒ Yes ☐ ***Forward to RCRA***
   Describe:_____ (***Get Photo***)
5. Did you see any signs of spills or releases (e.g., dead or stressed vegetation, stains, discoloration)? No ☒ Yes ☐ ***Forward to RCRA***
   Describe:_____ (***Get Photo***)
6. Did you see any chemical or waste handling practices that concern you (access to children/public)? No ☒ Yes ☐ ***Forward to RCRA & EPCRA*** Describe:_____ (***Get Photo***)
7. Does the facility have any past or present underground petroleum product or hazardous material tanks? No ☒ Yes ☐ ***Forward to UST***
8. Does the facility have any underground fuel tanks for emergency generators? No ☒ Yes ☐ ***Forward to UST***

**SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN (SPCC)**

1. Does the facility have any aboveground oil tanks (petroleum, synthetic, animal, fish, vegetable), with an aggregate volume >1,320 gallons?
   No ☐ (stop) Yes ☒ - Does the facility have a certified SPCC Plan? Yes ☒ No ☐ ***Forward to SPCC***
   If yes, are there secondary containment systems for the tanks? Yes ☒ No ☐ ***Forward to SPCC***
   If yes, are any tanks leaking where oil could reach waters of the State or U.S.? No ☒ Yes ☐ (***Get Photo***) ***Forward to SPCC***

**ENVIRONMENTAL MANAGEMENT SYSTEMS (EMS)**

1. Does your facility have an EMS? No ☒ Yes ☐
2. Is the facility's EMS ISO 14001 certified? No ☒ Yes ☐

**** PLEASE TAKE PHOTOS TO DOCUMENT POTENTIAL PROBLEMS***

Version 08.23.05a GRAY SHADED AREAS INDICATE ITEMS **YOU** NEED TO **LOOK** FOR DURING VISUAL INSPECTION

The Andersons
PLANT NUTRIENT

**SHAWN TURNER**
OPERATIONS MANAGER

2717 PORTNEAL CIRCLE
SGT. BLUFF, IA 51054

PHONE: 712-943-3983
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DIRECTOR - AG SPECIALTY OPERATIONS

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
CONFIDENTIALITY NOTICE

| Facility Name | |
|---|---|
| ANDERSONS SERGEANT BLUFF PLANT | |
| Facility Address | |
| 2717 PORT NEAL CIRCLE, SERGEANT BLUFF, IOWA 51054 | |
| Inspector (print) | |
| CLIFFORD ALAN NELLES | |
| U.S. EPA, Region VII, 901 N. 5th St., Kansas City, KS 66101 ~~CAN~~ BOOZ ALLEN HAMILTON | Date 08/03/2016 |

The United States Environmental Protection Agency (EPA) is obligated, under the Freedom of Information Act, to release information collected during inspections to persons who submit requests for that information. The Freedom of Information Act does, however, have provisions that allow EPA to withhold certain confidential business information from public disclosure. To claim protection for information gathered during this inspection you must request that the information be held CONFIDENTIAL and substantiate your claim in writing by demonstrating that the information meets the requirements in 40 CFR 2, Subpart B. The following criteria in Subpart B must be met:

1. Your company has taken measures to protect the confidentiality of the information, and it intends to continue to take such measures.

2. No statute specifically requires disclosure of the information.

3. Disclosure of the information would cause substantial harm to your company's competitive position.

Information that you claim confidential will be held as such pending a determination of applicability by EPA.

| I have received this Notice and DO NOT want to make a claim of confidentiality at this time. | |
|---|---|
| Facility Representative Provided Notice (print) | Signature/Date |
| Shawn Turner | Shawn Turner 8/3/16 |

| I have received this Notice and DO want to make a claim of confidentiality. | |
|---|---|
| Facility Representative Provided Notice (print) | Signature/Date |
| | |

Information for which confidential treatment is requested;

(Rev: 11/15/99)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RECEIPT FOR DOCUMENTS AND SAMPLES

| Facility Name |
| --- |
| ANDERSONS - SERGEANT BLUFF PLANT |
| **Facility Address** |
| 2717 PORT NEAL CIRCLE, SERGEANT BLUFF, IOWA 51054 |

Documents Collected? YES X (list below) NO___

Samples Collected? YES___ (list below) NO X Split Samples: YES___ NO___

Documents/Samples were: 1)Received no charge X 2)Borrowed___ 3)Purchased___

Amount Paid: $_____ Method: Cash___ Voucher___ To Be Billed___

The documents and samples described below were collected in connection with the administration and enforcement of the applicable statute under which the information is obtained.

==========

Receipt for the document(s) and/or sample(s) described below is hereby acknowledged:

SITE MAP - 1 PAGE
MSDS - 33 PAGES
NPDES - 1 PAGE
SPCC PLAN - 1 PAGE
MANIFESTS AND LDR - 6 PAGES
BIENNIAL REPORT - 8 PAGES
TIER II REPORT - 10 PAGES

| Facility Representative (print) | Signature/Date |
| --- | --- |
| Shawn Turner | Shawn Turner 8/3/16 |
| **Inspector (print)** | **Signature/Date** |
| CLIFFORD ALAN NELLES | Clifford A. Nelles 08/03/2016 |
| U.S. EPA, Region VII, 901 N. 5th Street, Kansas City, KS 66101 BOOZ ALLEN HAMILTON | |

(rev:1/20/93)

Attachment 4 Page 1 of 1

PHOTO LOG

Facility Name / City: ANDERSONS SERGEANT BLUFF PLANT
2717 Port Neal Circle
SERGEANT BLUFF, IA 51054
Facility ID #: IAR000007310
Date: August 03, 2016
Photographer: Clifford A. Nelles
Type of Camera: Sony Digital Still Camera, DSC-W690, Serial #6653306
Digital Recording Media: Memory Stick
All digital photos were copied by: Clifford A. Nelles on 08/03/2016
All digital photos were copied to: to print and CD-R
Original copy is stored in: CD-R. All digital photos were downloaded to CD-R by Clifford A. Nelles on 08/19/2016. No changes were made in the original image files prior to print and storage on the CD-R.

| Report Photo # | Photographer | Date | Approx. Time | File Name (DSC00xxx.jpg) | Description |
|---|---|---|---|---|---|
| 1 | Clifford A. Nelles | 08/03/16 | 0927 | 001 | Aerosol can container in Maintenance Shop. The 30-gallon container is labeled "Hazardous Waste", holds approximately 15 empty aerosol cans and is closed, facility is CESQG and is managing as a hazardous waste. |
| 2 | Clifford A. Nelles | 08/03/16 | 0929 | 002 | Used Oil tank in Northeast corner of Main Production Building |
| 3 | Clifford A. Nelles | 08/03/16 | 1136 | 004 | Universal Waste Lamps container in storage shed next to Scale. The container of four foot waste lamps is labeled "Waste Lamps", closed, and dated 08/24/2015. The universal waste lamps container holds approximately 25 green-tipped nonhazardous waste lamps, and 11 hazardous universal waste lamps. |
| 4 | Clifford A. Nelles | 08/03/16 | 1135 | 003 | Date of 08/24/2015 affixed to the top of the universal waste lamps container. |

ANDERSONS SERGEANT BLUFF PLANT
SERGEANT BLUFF, IA

Photo Number: 1
Photographer: Clifford Nelles
Date: 08/03/2016
Time: 0927
Description: Aerosol can container in Maintenance Shop. The 30-gallon container is labeled "Hazardous Waste", holds approximately 15 empty aerosol cans and is closed, facility is CESQG and is managing as a hazardous waste.

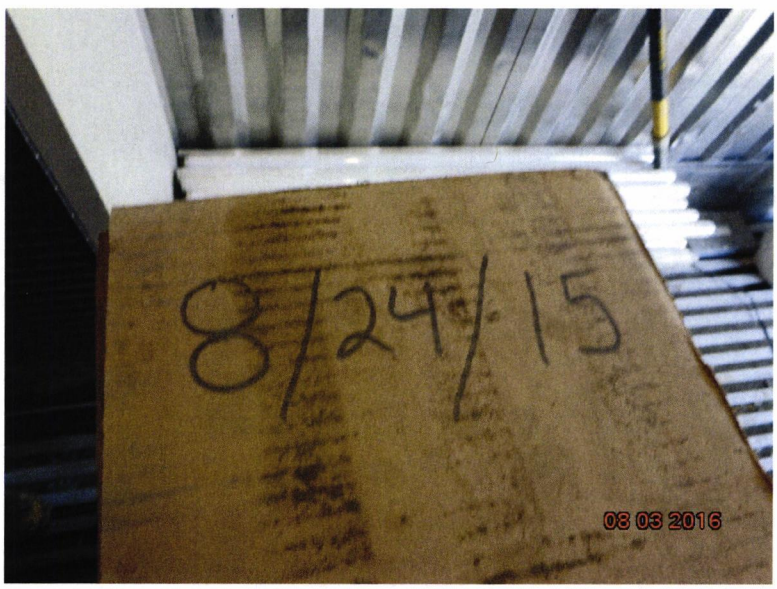

Photo Number: 2
Photographer: Clifford Nelles
Date: 08/03/2016
Time: 0929
Description: Used Oil tank in Northeast corner of Main Production Building


**Original Photos transferred, without modification, to CD on 08/19/2016 by Clifford Nelles**

ANDERSONS SERGEANT BLUFF PLANT
SERGEANT BLUFF, IA

Photo Number: 3
Photographer: Clifford Nelles
Date: 08/03/2016
Time: 1136
Description: Universal Waste Lamps container in storage shed next to Scale. The container of four foot waste lamps is labeled "Waste Lamps", closed, and dated 08/24/2015. The universal waste lamps container holds approximately 25 green-tipped nonhazardous waste lamps, and 11 hazardous universal waste lamps.


Photo Number: 4
Photographer: Clifford Nelles
Date: 08/03/2016
Time: 1135
Description: Date of 08/24/2015 affixed to the top of the universal waste lamps container.




**Original Photos transferred, without modification, to CD on 08/19/2016 by Clifford Nelles**

# Occidental Chemical Corporation

A subsidiary of Occidental Petroleum Corporation

Responsible Care

## CAUSTIC POTASH LIQUID (ALL GRADES)

**MSDS No.:** M31866 **Rev. Date:** 10-Jul-2012 **Rev. Num.** 05

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

| | |
|---|---|
| **Company Identification:** | Occidental Chemical Corporation<br>5005 LBJ Freeway<br>P.O. Box 809050<br>Dallas, TX 75380-9050 |
| **24 Hour Emergency Telephone Number:** | 1-800-733-3665 or 1-972-404-3228 (U.S.), U.S. CHEMTREC: 1-800-424-9300, International CHEMTREC phone number: +1 703-527-3887 |
| **To Request an SDS:** | MSDS@oxy.com or 1-972-404-3245 |
| **Customer Service:** | 1-800-752-5151 or 1-972-404-3700 |
| **Trade Name:** | Caustic Potash Membrane Dilute Solution 45%, 48%, 50%, Caustic Potash Liquid (10-40% Solution) |
| **Synonyms:** | KOH, liquid potash, Potassium Hydroxide |
| **Product Use:** | Glass Production, Cleaner, Process cleaner, Petroleum Industry |

## 2. HAZARDS IDENTIFICATION

**********

### EMERGENCY OVERVIEW:

| | |
|---|---|
| **Color:** | Colorless |
| **Physical State:** | Liquid |
| **Appearance:** | Clear |
| **Odor:** | Odorless |
| **Signal Word:** | **DANGER** |

**MAJOR HEALTH HAZARDS:** CORROSIVE. CAUSES BURNS TO THE RESPIRATORY TRACT, SKIN, EYES AND GASTROINTESTINAL TRACT. CAUSES PERMANENT EYE DAMAGE. EFFECTS OF CONTACT OR INHALATION MAY BE DELAYED.

**PHYSICAL HAZARDS:** Mixing with water, acid or incompatible materials may cause splattering and release of heat. Do not store in aluminum container or use aluminum fittings or transfer lines, as flammable hydrogen gas may be generated.

**ECOLOGICAL HAZARDS:** This material has exhibited moderate toxicity to aquatic organisms.

**PRECAUTIONARY STATEMENTS:** Do not get in eyes, on skin, or on clothing. Do not breathe vapor or mist. Keep container tightly closed. Wash thoroughly after handling. Use with adequate ventilation .

**********

**POTENTIAL HEALTH EFFECTS:**

**Inhalation:** May cause severe irritation of the respiratory tract with coughing, choking, pain and possibly burns of the mucous membranes.

**Skin contact:** Causes skin burns.

**Eye contact:** Causes serious eye damage.

**Ingestion:** Causes burns.

**Chronic Effects:** None known.

**Medical Conditions Aggravated by Exposure:** Respiratory system (including asthma and other breathing disorders).

**See Section 11: TOXICOLOGICAL INFORMATION**

## 3. COMPOSITION/ INFORMATION ON INGREDIENTS

| Component | % | CAS Number |
|---|---|---|
| Potassium hydroxide | 10 - 51 | 1310-58-3 |
| Water | 49 - 90 | 7732-18-5 |

## 4. FIRST AID MEASURES

**INHALATION:** If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. If respiration or pulse has stopped, have a trained person administer basic life support (Cardio-Pulmonary Resuscitation and/or Automatic External Defibrillator) and CALL FOR EMERGENCY SERVICES IMMEDIATELY.

**SKIN CONTACT:** Immediately flush contaminated areas with water. Remove contaminated clothing, jewelry and shoes. Wash contaminated areas with soap and water. Thoroughly clean and dry contaminated clothing before reuse. Discard contaminated leather goods. GET MEDICAL ATTENTION IMMEDIATELY.

**EYE CONTACT:** Immediately flush eyes with a directed stream of water for at least 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissues. Washing eyes within several seconds is essential to achieve maximum effectiveness. GET MEDICAL ATTENTION IMMEDIATELY.

**INGESTION:** Never give anything by mouth to an unconscious or convulsive person. If swallowed, do not induce vomiting. Give large amounts of water. If vomiting occurs spontaneously, keep airway clear. Give more water when vomiting stops. GET MEDICAL ATTENTION IMMEDIATELY.

**Notes to Physician:** The absence of visible signs or symptoms of burns does NOT reliably exclude the presence of actual tissue damage. Probable mucosal damage may contraindicate the use of gastric lavage.

## 5. FIRE-FIGH TI NG MEASURES

**Fire Hazard:** Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. May react with chemically reactive metals such as aluminum, zinc, magnesium, copper, etc. to release hydrogen gas which can form explosive mixtures in air.

**Extinguishing Media:** Use extinguishing agents appropriate for surrounding fire.

**Fire Fighting:** Move container from fire area if it can be done without risk. Cool containers with water. Wear NIOSH approved positive-pressure self-contained breathing apparatus operated in pressure demand mode. Avoid contact with skin.

**Sensitivity to Mechanical Impact:** Not sensitive.

**Sensitivity to Static Discharge:** Not sensitive.

**Flash point:** Not flammable

## 6. ACCIDE NTAL RELEASE MEASURES

**Occupational Release:** Wear appropriate personal protective equipment recommended in Section 8 of the SDS. Completely contain spilled material with dikes, sandbags, etc. Keep out of water supplies and sewers. Liquid material may be removed with a vacuum truck. Flush spill area with water, if appropriate. This material is alkaline and may raise the pH of surface waters with low buffering capacity. Releases should be reported, if required, to appropriate agencies.

## 7. HANDLING AND STORAGE

**Storage Conditions:** Store and handle in accordance with all current regulations and standards. Keep container tightly closed and properly labeled. Do not store in aluminum container or use aluminum fittings or transfer lines, as flammable hydrogen gas may be generated. Keep separated from incompatible substances (see Section 10 of SDS).

**Handling Procedures:** Avoid breathing vapor or mist. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. When mixing, slowly add to water to minimize heat generation and spattering.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Regulatory Exposure Limit(s):** None

**Non-Regulatory Exposure Limit(s):** As listed below

| Component | CAS Number | ACGIH TWA | ACGIH STEL | ACGIH Ceiling | OSHA TWA (Vacated) | OSHA STEL (Vacated) | OSHA Ceiling (Vacated) |
|---|---|---|---|---|---|---|---|
| Potassium hydroxide | 1310-58-3 | ----- | ------- | 2 $mg/m^3$ | ------- | ------- | 2 $mg/m^3$ |

**- The Non-Regulatory United States Occupational Safety and Health Administration (OSHA) limits shown in the table are the Vacated 1989 PEL's (vacated by 58 FR 35338, June 30, 1993).**

**- The American Conference of Governmental Industrial Hygienists (ACGIH) is a voluntary organization of professional industrial hygiene personnel in government or educational institutions in the United States. The ACGIH develops and publishes recommended occupational exposure limits each year called Threshold Limit Values (TLVs) for hundreds of chemicals, physical agents, and biological exposure indices.**

**ENGINEERING CONTROLS:** Provide local exhaust ventilation where dust or mist may be generated. Ensure compliance with applicable exposure limits.

**PERSONAL PROTECTIVE EQUIPMENT:**

**Eye Protection:** Wear chemical safety goggles with a faceshield to protect against eye and skin contact when appropriate. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

**Skin and Body Protection:** Wear protective clothing to minimize skin contact. When potential for contact with wet material exists, wear Tychem® or similar chemical protective suit. When potential for contact with dry material exists, wear disposable coveralls suitable for dust exposure, such as Tyvek®. Always place pants legs over boots. Thoroughly clean and dry contaminated clothing before reuse. Discard contaminated leather goods.

**Hand Protection:** Wear appropriate chemical resistant gloves.

**Protective Material Types:** Butyl rubber, Natural rubber, Nitrile, Polyvinyl chloride (PVC), Tychem®, Tyvek®

**Respiratory Protection:** A NIOSH approved respirator with N95 dust/mist filter (1/2 facepiece) or N100 dust/mist filter (full facepiece) cartridges may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits, or when symptoms have been observed that are indicative of overexposure. If eye irritation occurs, a full face style mask should be used. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| **Physical State:** | Liquid |
| **Appearance:** | Clear |
| **Color:** | Colorless |
| **Odor:** | Odorless |
| **Molecular Weight:** | 56.11 |
| **Flash point:** | Not flammable |
| **Boiling Point/Range:** | 216 to 289 °F (102 to 143 °C ) |
| **Freezing Point/Range:** | -128 to 39 °F (-89 to 4 °C) |
| **Specific Gravity (water=1):** | 1.09 - 1.52 @ 15.6 °C |
| **Density:** | 9.09 - 12.67 lbs/gal @ 15.6 °C |
| **Water Solubility:** | 100% |
| **pH:** | 12 - 14 |

## 10. STABILITY AND REACTIVITY

**Reactivity/ Stability:** Stable at normal temperatures and pressures.

**Conditions to Avoid:** Mixing with water, acid, or incompatible materials may cause splattering and release of large amounts of heat. Will react with some metals forming flammable hydrogen gas. Carbon monoxide gas may form upon contact with reducing sugars, food and beverage products in enclosed spaces.

**Incompatibilities/ Materials to Avoid:** Acids, Flammable liquids, Halogenated compounds, Prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc or other alkali sensitive metals or alloys

**Hazardous Decomposition Products:** None known

**Hazardous Polymerization:** Will not occur

## 11. TOXICOLOGICAL INFORMATION

**TOXICITY DATA:**

| Component | LD50 Oral: | LC50 Inhalation: | LD50 Dermal: |
|---|---|---|---|
| Potassium hydroxide | 214 mg/kg (Rat) | -------- | -------- |

**TOXICITY:**
When in solution, this material will affect all tissues with which it comes in contact. The severity of the tissue damage is a function of its concentration, the length of tissue contact time, and local tissue conditions. After exposure there may be a time delay before irritation and other effects occur. This material is a strong irritant and is corrosive to the skin, eyes, and mucous membranes. This material may cause severe burns and permanent damage to any tissue with which it comes into contact.

**CARCINOGENICITY:** This product is not classified as a carcinogen by NTP, IARC or OSHA.

## 12. ECOLOGICAL INFORMATION

**ECOTOXICITY DATA:**

- **Aquatic Toxicity:**
  This material is alkaline and may raise the pH of surface waters with low buffering capacity.
  This material has exhibited moderate toxicity to aquatic organisms.

- **Freshwater Fish Toxicity:**
  LC50 (Mosquito fish): 80 mg/L/96 hr (static bioassay in fresh water at 18-19 C)
  LC50 (Fathead Minnow): 179 mg/L/96 hr (static at 22.3-24.7 C)

- **Invertebrate Toxicity:**
  EC50 (Daphnia magna): 60 mg/L/48 hr (static bioassay at 20.3-20.7 C)

- **Algae Toxicity:**
  ErC50 (Selenastrum capricornutum): 61 mg/L/96 hr (static bioassay at 23-23.9 C)

**FATE AND TRANSPORT:**

**BIODEGRADATION:** This material will disassociate into ionic form in the aquatic environment. Natural carbon dioxide will slowly neutralize this material.

**BIOCONCENTRATION:** This material will not bioconcentrate.

**ADDITIONAL ECOLOGICAL INFORMATION:** This material has exhibited slight toxicity to terrestrial organisms.

**ECOLOGICAL HAZARDS:** This material has exhibited moderate toxicity to aquatic organisms.

## 13. DISPOSAL CONSIDERATIONS

Reuse or reprocess, if possible. Dispose in accordance with all applicable regulations. May be subject to disposal regulations.

## 14. TRANSPORT INFORMATION

**U.S. DOT 49 CFR 172.101:**

| | |
|---|---|
| **PROPER SHIPPING NAME:** | Potassium hydroxide, solution |
| **UN NUMBER:** | UN1814 |
| **HAZARD CLASS/ DIVISION:** | 8 |
| **PACKING GROUP:** | II |
| **LABELING REQUIREMENTS:** | 8 |
| **RQ (lbs):** | RQ 1,000 Lbs. (Potassium hydroxide) |

**CANADIAN TRANSPORTATION OF DANGEROUS GOODS:**

| | |
|---|---|
| **SHIPPING NAME:** | Potassium hydroxide, solution |
| **UN NUMBER:** | UN1814 |
| **CLASS OR DIVISION:** | 8 |
| **PACKING/RISK GROUP:** | II |

## 15. REGULATORY INFORMATION

**U.S. REGULATIONS**

- **OSHA REGULATORY STATUS:**
  This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

- **CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4):**
  If a release is reportable under CERCLA section 103, notify the state emergency response commission and local emergency planning committee. In addition, notify the National Response Center at (800) 424-8802 or (202) 426-2675

| Component | CERCLA Reportable Quantities: |
|---|---|
| Potassium hydroxide | 1000 lb (final RQ) |

- **EPCRA EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.30):** Not regulated
- **EPCRA SECTIONS 311/312 HAZARD CATEGORIES (40 CFR 370.10):**
  Acute Health Hazard
- **EPCRA SECTION 313 (40 CFR 372.65):** Not regulated.
- **OSHA PROCESS SAFETY (PSM) (29 CFR 1910.119):** Not regulated
- **FDA:** This material has Generally Recognized as Safe (GRAS) status under specific FDA regulations. Additional information is available from the Code of Federal Regulations which is accessible on the FDA's website
  This product is not produced under all current Good Manufacturing Practices (cGMP) requirements as defined by the Food and Drug Administration (FDA).

**NATIONAL INVENTORY STATUS**

- **U.S. INVENTORY STATUS: Toxic Substance Control Act (TSCA):** All components are listed or exempt
- **TSCA 12(b):** This product is not subject to export notification
- **Canadian Chemical Inventory:** Canadian Chemical Inventory:

**STATE REGULATIONS**

**California Proposition 65:** This product is not listed, but it may contain impurities/trace elements known to the State of California to cause cancer or reproductive toxicity as listed under Proposition 65 State Drinking Water and Toxic Enforcement Act.

| Potassium hydroxide | |
|---|---|
| California Proposition 65 Cancer WARNING: | Not Listed |
| California Proposition 65 CRT List - Male reproductive toxin: | Not Listed |
| California Proposition 65 CRT List - Female reproductive toxin: | Not Listed |
| Massachusetts Right to Know Hazardous Substance List | Listed |
| New Jersey Right to Know Hazardous Substance List | sn 1571 |
| New Jersey Special Health Hazards Substance List | corrosive |
| New Jersey - Environmental Hazardous Substance List | Not Listed |
| Pennsylvania Right to Know Hazardous Substance List | Listed |
| Pennsylvania Right to Know Special Hazardous Substances | Not Listed |
| Pennsylvania Right to Know Environmental Hazard List | Listed |
| Rhode Island Right to Know Hazardous Substance List | Listed |

**CANADIAN REGULATIONS**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations

**WHMIS - Classifications of Substances:**
- E - Corrosive material

## 16. OTHER INFORMATION

**Prepared by:** OxyChem Corporate HESS - Health Risk Management

**HMIS: (SCALE 0-4)** (Rated using National Paint & Coatings Association HMIS: Rating Instructions, 2nd Edition)

| | | | | | |
|---|---|---|---|---|---|
| **Health:** | 3 | **Flammability:** | 0 | **Reactivity:** | 1 |

**NFPA 704 - Hazard Identification Ratings (SCALE 0-4)**

| | | | | | |
|---|---|---|---|---|---|
| **Health:** | 3 | **Flammability:** | 0 | **Reactivity:** | 1 |

**Reason for Revision:**
- Updated 24 Hour Emergency Telephone Number: SEE SECTION 1
- Updated Disposal Considerations: SEE SECTION 13
- Updated FDA Statement: SEE SECTION 15
- Revised California Proposition 65 Statement: SEE SECTION 15
- Added Revision log: SEE SECTION 15

**IMPORTANT:**
The information presented herein, while not guaranteed, was prepared by technical personnel and is true and accurate to the best of our knowledge. NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, OR WARRANTY OR GUARANTY OF ANY OTHER KIND, EXPRESS OR IMPLIED, IS MADE REGARDING PERFORMANCE, SAFETY, SUITABILITY, STABILITY OR OTHERWISE. This information is not intended to be all-inclusive as to the manner and conditions of use, handling, storage, disposal and other factors that may involve other or additional legal, environmental, safety or performance considerations, and OxyChem assumes no liability whatsoever for the use of or reliance upon this information. While our technical personnel will be happy to respond to questions, safe handling and use of the product remains the responsibility of the customer. No suggestions for use are intended as, and nothing herein shall be construed as, a recommendation to infringe any existing patents or to violate any Federal, State, local or foreign laws.

OSHA Standard 29 CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of a hazard communication program including labeling, safety data sheets, training and access to written records. We request that you, and it is your legal duty to, make all information in this Safety Data Sheet available to your employees.

Univar
3075 Highland Pkwy STE 200
Downers Grove, IL 60515
425-889-3400

# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** - CAUSTIC SODA 50%

**Other means of identification**

**Synonyms:** Sodium Hydroxide

**SDS number:** 000100000088

**Recommended use and restriction on use**

**Recommended use:** Not available.

**Restrictions on use:** Not known.

**Emergency telephone number:For emergency assistance Involving chemicals**

**call CHEMTREC day or night at: 1-800-424-9300. CHEMTREC INTERNATIONAL Tel# 703-527-3887**

## 2. Hazard(s) identification

**Hazard classification**

**Health hazards**

| | |
|---|---|
| Acute toxicity (Oral) | Category 4 |
| Skin corrosion/irritation | Category 1A |
| Serious eye damage/eye irritation | Category 1 |
| **Environmental hazards**Acute hazards to the aquatic environment | Category 3 |

**Label elements**

**Hazard symbol**

| | |
|---|---|
| **Signal word** | Danger |
| **Hazard statement** | Corrosive.<br>Harmful if swallowed.<br>Causes severe skin burns and eye damage. |
| **Precautionary statement** | |
| **Prevention** | Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Do not eat, drink or smoke when using this product. |
| **Response** | IF INHALED: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF SWALLOWED: Call a POISON CENTER/doctor/ if you feel unwell. Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. Specific treatment (see this label). Wash contaminated clothing before reuse. |
| **Storage** | Store in a closed container. Keep container tightly closed. Store in a well-ventilated place. Store in a dry place. Store locked up. |
| **Disposal** | Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. |
| **Other hazards which do not result in GHS classification** | None. |

## 3. Composition/information on ingredients

**Substances**

| Chemical identity | Common name and synonyms | CAS number | Content in percent (%)* |
|---|---|---|---|
| Sodium hydroxide | | 1310-73-2 | >=48 - <=52% |
| Water | | 7732-18-5 | >=48 - <=52% |
| Sodium Chloride | | 7647-14-5 | >=0 - <=5% |

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. First-aid measures

**General information:** CAUTION! First aid personnel must be aware of own risk during rescue!

**Ingestion:** Do NOT induce vomiting. Never give liquid to an unconscious person. Get medical attention immediately.

**Inhalation:** Move to fresh air. If breathing is difficult, give oxygen. Perform artificial respiration if breathing has stopped. Get medical attention immediately.

**Skin contact:** Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

**Eye contact:** If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

**Most important symptoms/effects, acute and delayed**

**Symptoms:** No data available.

**Indication of immediate medical attention and special treatment needed**

**Treatment:** No data available.

## 5. Fire-fighting measures

**General fire hazards:** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** Use: Powder. In case of fire in the surroundings: all extinguishing agents allowed.

**Unsuitable extinguishing media:** Avoid water in straight hose stream; will scatter and spread fire.

| | |
|---|---|
| **Specific hazards arising from the chemical:** | Fire or excessive heat may produce hazardous decomposition products. Heat may cause the containers to explode. |
| **Special protective equipment and precautions for firefighters** | |
| **Special fire fighting procedures:** | No data available. |
| **Special protective equipment for fire-fighters:** | Avoid breathing fire vapors. Avoid water in straight hose stream; will scatter and spread fire. Move container from fire area if it can be done without risk. |

## 6. Accidental release measures

| | |
|---|---|
| **Personal precautions, protective equipment and emergency procedures:** | Use personal protective equipment. Keep unauthorized personnel away. |
| **Methods and material for containment and cleaning up:** | Do not touch or walk through spilled material. Absorb spillage with non-combustible, absorbent material. Dike for later disposal. |

## 7. Handling and storage

| | |
|---|---|
| **Precautions for safe handling:** | Use personal protective equipment as required. Use only with adequate ventilation. Container must be kept tightly closed. |
| **Conditions for safe storage, including any incompatibilities:** | Keep container tightly closed. Store in appropriate chemical storage area. Keep in a cool, well-ventilated place. Store in corrosive resistant container with a resistant inner liner. |

## 8. Exposure controls/personal protection

**Control parameters**

**Occupational exposure limits**

| Chemical identity | Type | Exposure Limit values | Source |
|---|---|---|---|
| Sodium hydroxide | Ceiling | 2 mg/m3 | US. ACGIH Threshold Limit Values (03 2013) |
| | Ceil_Time | 2 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards (2010) |
| | PEL | 2 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| | Ceiling | 2 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989) |
| | Ceiling | 2 mg/m3 | US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008) |
| Sodium hydroxide - Particulate. | ST ESL | 20 µg/m3 | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013) |
| | AN ESL | 2 µg/m3 | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013) |
| Sodium hydroxide | Ceiling | 2 mg/m3 | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (02 2012) |

**Appropriate engineering controls** Adequate ventilation should be provided so that exposure limits are not exceeded. Eye washes and showers for emergency use.

**Individual protection measures, such as personal protective equipment**

**General information:** Use personal protective equipment as required. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned. Practice good housekeeping.

**Eye/face protection:** Use personal protective equipment as required. Wear goggles/face shield.

**Skin protection**

**Hand protection:** Chemical resistant gloves.

**Other:** Chemical resistant clothing

| | |
|---|---|
| **Respiratory protection:** | In case of inadequate ventilation use suitable respirator. |
| **Hygiene measures:** | When using do not eat, drink or smoke. Wash thoroughly after handling. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned. |

## 9. Physical and chemical properties

| | |
|---|---|
| **Physical state:** | Liquid |
| **Form:** | Liquid |
| **Color:** | Colorless |
| **Odor:** | Odorless |
| **Odor threshold:** | No data available. |
| **pH:** | 14 |
| **Melting point/freezing point:** | 10 - 12 °C |
| **Initial boiling point and boiling range:** | 105 - 140 °C |
| **Flash Point:** | No data available. |
| **Evaporation rate:** | No data available. |
| **Flammability (solid, gas):** | No data available. |
| **Upper/lower limit on flammability or explosive limits** | |
| **Flammability limit - upper (%):** | No data available. |
| **Flammability limit - lower (%):** | No data available. |
| **Explosive limit - upper (%):** | No data available. |
| **Explosive limit - lower (%):** | No data available. |
| **Vapor pressure:** | 1.333 hPa |
| **Vapor density:** | No data available. |
| **Relative density:** | No data available. |
| **Solubility(ies)** | |
| **Solubility in water:** | No data available. |
| **Solubility (other):** | No data available. |
| **Partition coefficient (n-octanol/water):** | No data available. |
| **Auto-ignition temperature:** | No data available. |
| **Decomposition temperature:** | No data available. |

**Viscosity:** No data available.

## 10. Stability and reactivity

**Reactivity:** No data available.
**Chemical stability:** Material is stable under normal conditions.
**Possibility of hazardous reactions:** This product may generate hydrogen gas. Keep away from ignition source. Empty container after use should be stored in separate area, and be disposed after degassing completely.
**Conditions to avoid:** No data available.
**Incompatible materials:** Avoid contact with acids and oxidizing substances.
**Hazardous decomposition products:** This product may generate hydrogen gas. Keep away from ignition source. Empty container after use should be stored in separate area, and be disposed after degassing completely.

## 11. Toxicological information

**Symptoms related to the physical, chemical and toxicological characteristics**
**Ingestion:** No data available.
**Inhalation:** No data available.
**Skin contact:** No data available.
**Eye contact:** No data available.
**Information on toxicological effects**
**Acute toxicity (list all possible routes of exposure)**
**Oral**
**Product:** ATEmix (): 353.488372 mg/kg
**Dermal**
**Product:**
Not classified for acute toxicity based on available data.
**Inhalation**
**Product:** No data available.
**Specified substance(s):**
Sodium Chloride LC 50 (Rat, ): > 42 mg/l 2 (reliable with restrictions)
**Repeated dose toxicity**
**Product:** No data available.
**Skin corrosion/irritation**
**Product:** Causes skin burns.
**Serious eye damage/eye irritation**
**Product:** Causes serious eye damage. Causes severe eye burns.
**Respiratory or skin sensitization**

**Product:** No data available.

**Carcinogenicity**

**Product:** No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**
No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**
No carcinogenic components identified

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**
No carcinogenic components identified

**Germ cell mutagenicity**

**In vitro**

**Product:** No data available.

**In vivo**

**Product:** No data available.

**Reproductive toxicity**

**Product:** No data available.

**Specific target organ toxicity - single exposure**

**Product:** No data available.

**Specific target organ toxicity - repeated exposure**

**Product:** No data available.

**Aspiration hazard**

**Product:** No data available.

**Other effects:** No data available.

## 12. Ecological information

**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**

**Product:** LC 50 (Bluegill Sunfish, 48 h): 1,294.6 mg/l

**Aquatic invertebrates**

**Product:** No data available.

**Specified substance(s):**

Sodium hydroxide — EC 50 (Water flea (Ceriodaphnia dubia), 48 h): 34.59 - 47.13 mg/l Intoxication LC 50 (Common shrimp, sand shrimp (Crangon crangon), 48 h): 33 - 100 mg/l Mortality LC 50 (Cockle (Cerastoderma edule), 48 h): 330 - 1,000 mg/l Mortality

**Chronic hazards to the aquatic environment:**

**Fish**

| | |
|---|---|
| **Product:** | No data available. |
| **Aquatic invertebrates** | |
| **Product:** | No data available. |
| **Toxicity to Aquatic Plants** | |
| **Product:** | No data available. |
| **Persistence and degradability** | |
| **Biodegradation** | |
| **Product:** | No data available. |
| **BOD/COD ratio** | |
| **Product:** | No data available. |
| **Bioaccumulative potential** | |
| **Bioconcentration factor (BCF)** | |
| **Product:** | No data available. |
| **Partition coefficient n-octanol / water (log Kow)** | |
| **Product:** | No data available. |
| **Mobility in soil:** | No data available. |
| **Known or predicted distribution to environmental compartments** | |
| Sodium hydroxide | No data available. |
| Water | No data available. |
| Sodium chloride | No data available. |
| **Known or predicted distribution to environmental compartments** | |
| Water | No data available. |

## 13. Disposal considerations

| | |
|---|---|
| **General information:** | Dispose of waste and residues in accordance with local authority requirements. |
| **Disposal instructions:** | This material and/or its container must be disposed of as hazardous waste. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. |
| **Contaminated packaging:** | No data available. |

## 14. Transport information

**DOT**

| | |
|---|---|
| UN number: | UN 1824 |
| UN proper shipping name: | Sodium hydroxide solution |
| Transport hazard class(es) | |
| Class: | 8 |
| Label(s): | 8 |
| Packing group: | II |
| Marine Pollutant: | Not regulated. |
| Special precautions for user: | – |

**IMDG**

| | |
|---|---|
| UN number: | UN 1824 |
| UN proper shipping name: | SODIUM HYDROXIDE SOLUTION |
| Transport hazard class(es) | |
| Class: | 8 |
| Label(s): | 8 |
| EmS No.: | F-A, S-B |
| Packing group: | II |
| Marine Pollutant: | Not regulated. |
| Special precautions for user: | – |

**IATA**

| | |
|---|---|
| UN number: | UN 1824 |
| Proper Shipping Name: | Sodium hydroxide solution |
| Transport hazard class(es): | |
| Class: | 8 |
| Label(s): | 8 |
| Packing group: | II |
| Environmental hazards | Not regulated. |
| Special precautions for user: | – |
| Other information | |
| Passenger and cargo aircraft: | Allowed. |
| Cargo aircraft only: | Allowed. |

## 15. Regulatory information

**US federal regulationsUS. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

None present or none present in regulated quantities.

**CERCLA Hazardous Substance List (40 CFR 302.4):**

Sodium hydroxide Reportable quantity: 1000 lbs.

**Superfund amendments and reauthorization act of 1986 (SARA)**

**Hazard categories**

☐ Acute (Immediate) ☐ Chronic (Delayed) ☐ Fire ☐ Reactive ☐ Pressure Generating

**SARA 302 Extremely hazardous substance**

None present or none present in regulated quantities.

**SARA 304 Emergency release notification**

| Chemical identity | RQ |
|---|---|
| Sodium hydroxide | 1000 lbs. |

**SARA 311/312 Hazardous chemical**

| Chemical identity | Threshold Planning Quantity |
|---|---|
| Sodium hydroxide | 500 lbs |
| Sodium Chloride | 500 lbs |

**SARA 313 (TRI reporting)**

None present or none present in regulated quantities.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)**

Sodium hydroxide Reportable quantity: 1000 lbs.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

None present or none present in regulated quantities.

**US state regulations**

**US. California Proposition 65**

No ingredient regulated by CA Prop 65 present.

**US. New Jersey Worker and Community Right-to-Know Act**

Sodium hydroxide Listed

**US. Massachusetts RTK - Substance List**

Sodium hydroxide Listed

**US. Pennsylvania RTK - Hazardous Substances**

Sodium hydroxide Listed

**US. Rhode Island RTK**

Sodium hydroxide Listed

| | |
|---|---|
| **Inventory Status:**Australia AICS: | Not in compliance with the inventory. |
| Canada DSL Inventory List: | Not in compliance with the inventory. |
| EU EINECS List: | Not in compliance with the inventory. |
| EU ELINCS List: | Not in compliance with the inventory. |
| Japan (ENCS) List: | Not in compliance with the inventory. |
| EU No Longer Polymers List: | Not in compliance with the inventory. |
| China Inv. Existing Chemical Substances: | Not in compliance with the inventory. |
| Korea Existing Chemicals Inv. (KECI): | Not in compliance with the inventory. |
| Canada NDSL Inventory: | Not in compliance with the inventory. |
| Philippines PICCS: | Not in compliance with the inventory. |
| US TSCA Inventory: | On or in compliance with the inventory |
| New Zealand Inventory of Chemicals: | Not in compliance with the inventory. |
| Japan ISHL Listing: | Not in compliance with the inventory. |
| Japan Pharmacopoeia Listing: | Not in compliance with the inventory. |

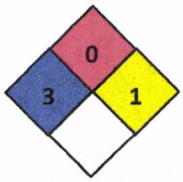
## 16.Other information, including date of preparation or last revision

**HMIS Hazard ID**


B - Safety Glasses & Gloves

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; *Chronic health effect

**NFPA Hazard ID**




Flammability
Health
Reactivity
Special hazard.

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

| | |
|---|---|
| **Issue date:** | 09/23/2015 |
| **Revision date:** | No data available. |
| **Version #:** | 1.4 |
| **Further information:** | No data available. |


UNIVAR®

# Anhydrous Ammonia

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

Revision Date: 16 June 2015 Date of issue: 4 June 2015 Supersedes Date: 15 May 2015 Version:1.1

## SECTION 1: IDENTIFICATION

### 1.1. Product Identifier

**Product Name:** Anhydrous Ammonia

**CAS No:** 7664-41-7

**Synonyms:** Liquid Ammonia, Ammonia

**US DOT STCC:** 4904210

**TDG STCC:** 4920359

**REACH Registration Number:** 01-2119488876-14-0122

### 1.2. Intended Use of the Product

Fertilizers, Manufacture of Chemicals, Manufacture of synthetic fibers, Refrigerant, Cleaning solutions

### 1.3. Name, Address, and Telephone of the Responsible Party

**Company**

CF Industries Sales, LLC

4 Parkway North, Suite 400

Deerfield, Illinois 60015-2590

847-405-2400

www.cfindustries.com

### 1.4. Emergency Telephone Number

**Emergency Number** : 800-424-9300

For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call CHEMTREC – Day or Night

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the Substance or Mixture

**Classification (GHS-US)**

| | |
|---|---|
| Flam. Gas 2 | H221 |
| Liquefied gas | H280 |
| Acute Tox. 3 (Inhalation: gas) | H331 |
| Skin Corr. 1B | H314 |
| Eye Dam. 1 | H318 |
| STOT SE 3 | H335 |
| Aquatic Acute 1 | H400 |
| Aquatic Chronic 2 | H411 |

Full text of H-phrases: see section 16

### 2.2. Label Elements

**GHS-US Labeling**

**Hazard Pictograms (GHS-US)** :

GHS04 GHS05 GHS06 GHS07 GHS09

**Signal Word (GHS-US)** : Danger

**Hazard Statements (GHS-US)** : H221 - Flammable gas.
H280 - Contains gas under pressure; may explode if heated.
H314 - Causes severe skin burns and eye damage.
H318 - Causes serious eye damage.
H331 - Toxic if inhaled.
H335 - May cause respiratory irritation.
H400 - Very toxic to aquatic life.
H411 - Toxic to aquatic life with long lasting effects.

**Precautionary Statements (GHS-US)** : P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking.
P260 - Do not breathe mist, spray, vapors, gas.
P261 - Avoid breathing vapors, mist, or spray.



Attachment 8 Page 1 of 12

P264 - Wash hands, forearms, and exposed areas thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear eye protection, protective clothing, protective gloves.
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - If inhaled: Remove person to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a poison center or doctor.
P311 - Call a poison center or doctor.
P312 - Call a poison center or doctor if you feel unwell.
P321 - Specific treatment (see Section 4 on this SDS).
P363 - Wash contaminated clothing before reuse.
P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P381 - Eliminate all ignition sources if safe to do so.
P391 - Collect spillage.
P403 - Store in a well-ventilated place.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P410+P403 - Protect from sunlight. Store in a well-ventilated place.
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

### 2.3. Other Hazards

Ammonium hydroxide is very volatile and may release anhydrous ammonia as a gas. Ammonia vapor, in concentrations of 16-25% volume by weight in air, is flammable, toxic by inhalation and corrosive. Take all appropriate precautions.

### 2.4. Unknown Acute Toxicity (GHS-US) No data available

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

| Name | Product Identifier | % (w/w) | Classification (GHS-US) |
|---|---|---|---|
| Ammonia | (CAS No) 7664-41-7 | >99.5 | Flam. Gas 2, H221<br>Liquefied gas, H280<br>Acute Tox. 3 (Inhalation: gas), H331<br>Skin Corr. 1B, H314<br>Eye Dam. 1, H318<br>STOT SE 3, H335<br>Aquatic Acute 1, H400<br>Aquatic Chronic 2, H411 |
| Ammonium hydroxide | (CAS No) 1336-21-6 | <0.5 | Acute Tox. 4 (Oral), H302<br>Skin Corr. 1B, H314<br>Eye Dam. 1, H318<br>STOT SE 3, H335<br>Aquatic Acute 1, H400 |

### 3.2. Mixture

Not applicable
Full text of H-phrases: see section 16

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of First Aid Measures

**General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). If frostbite or freezing occurs, immediately flush with plenty of lukewarm water to GENTLY warm the affected area. Do not use hot water. Do not rub affected area. Get immediate medical attention.

**Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Immediately call a POISON CENTER or doctor/physician.

**Skin Contact:** Immediately flush skin with plenty of water for at least 60 minutes. Remove contaminated clothing. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse.

**Eye Contact:** Rinse cautiously with water for at least 60 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

**Ingestion:** Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

### 4.2. Most Important Symptoms and Effects Both Acute and Delayed

**General:** Toxic if inhaled. Corrosive to eyes, respiratory system and skin.

**Inhalation:** Toxic if inhaled.

**Skin Contact:** Corrosive. Causes burns. Symptoms may include: Redness. Pain. Serious skin burns. Blisters.

**Eye Contact:** Causes permanent damage to the cornea, iris, or conjunctiva. Redness. Pain. Blurred vision. Severe burns.

**Ingestion:** Ingestion is an unlikely route of exposure for a gas.

**Chronic Symptoms: Not available**

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

## SECTION 5: FIRE-FIGHTING MEASURES

### 5.1. Extinguishing Media

**Suitable Extinguishing Media:** Water spray, fog.

**Unsuitable Extinguishing Media:** Do not use a heavy water stream. Use of heavy stream of water may spread fire. Do not use water directly on liquid ammonia as this will increase formation of ammonia vapors.

### 5.2. Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Flammable gas. Ammonia concentrations in the range of 16-25% by volume in air can be ignited if heated to the auto-ignition temperature. Oil or other combustible materials increases the fire hazard.

**Explosion Hazard:** Forms explosive compounds with calcium hypochlorite, bleaches, gold, mercury, silver, chlorine and other halogens.

**Reactivity:** Corrosive to copper and aluminum, including their alloys, and galvanized surfaces.

### 5.3. Advice for Firefighters

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire. Do not allow ammonia vapors to accumulate in confined areas where ignition may occur.

**Firefighting Instructions:** Stop leak if safe to do so. For a serious leak, use fire hose with fog nozzle and plant of water to absorb ammonia vapors. Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Move undamaged containers from immediate hazard area if it can be done with minimal risk. Water spray may be useful in minimizing or dispersing vapors and to protect persons shutting off flow. Cool equipment exposed to fire with water, if it can be done with minimal risk. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection. Firefighters must use full bunker gear including NIOSH-approved positive-pressure self-contained breathing apparatus to protect against potential hazardous combustion and decomposition products.

**Hazardous Combustion Products**: Nitrogen oxides.

**Other Information:** Compressed gas or refrigerated liquid. Intense heating particularly in contact with hot metallic surfaces may cause decomposition of ammonia generating hydrogen, a flammable gas. Note that many materials, particularly plastics, become brittle upon contact with liquid ammonia.

**Reference to Other Sections**

Refer to section 9 for flammability properties.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Cleanup workers should stay upwind and keep out of low areas where ammonia vapors can accumulate. Keep away from open flames, hot surfaces and sources of ignition. Use special care to avoid static electric charges. No smoking. Do not get in eyes, on skin, or on clothing. Do not breathe gas. If small spill, allow to vaporize or absorb vapor in water. For a large spill refer to section 5.3 for advice. Neutralization with acid is NOT recommended.

#### 6.1.1. For Non-Emergency Personnel

**Protective Equipment:** Use appropriate personal protection equipment (PPE). Persons without proper PPE should be restricted from the spill area until cleanup has been completed.

**Emergency Procedures:** Evacuate unnecessary personnel. Eliminate ignition sources.

#### 6.1.2. For Emergency Personnel

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Stop leak if safe to do so. Ventilate area.

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters.

### 6.3. Methods and Material for Containment and Cleaning Up

**For Containment:** Stop the flow of material, if this is without risk. Ventilate area.

**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Allow to vaporize or absorb the vapor in water. Use only non-sparking tools.

### 6.4. Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection. See Section 13, Disposal Considerations.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for Safe Handling

**Additional Hazards When Processed:** Do NOT enter (storage areas, confined spaces) unless adequately ventilated. Emits ammonia vapors. Flammable gas. Ammonium hydroxide reacts with many heavy metals and their salts forming explosive compounds. It attacks many metals forming flammable/explosive gas. The solution in water is a strong base, it reacts violently with acids.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Contents under pressure. The use of explosion proof equipment is recommended. Anhydrous ammonia is a product which must be handled in approved equipment and by trained personnel. Any proposed use of this product in elevated-temperature processes should be thoroughly evaluated to assure that safe operating conditions are established and maintained. Ensure adequate ventilation. Proper grounding procedures to avoid static electricity should be followed. System design and training programs must comply with applicable regulations and in addition to good engineering practices. Pressure vessels, piping and appurtenances should be regularly inspected and tested using methods designed to reveal external and internal deterioration or defects that may impair integrity of the equipment such that an unintended release of anhydrous ammonia may result. Consult with State Department of Agriculture and other experts, as applicable, concerning methods that would be appropriate given the particular circumstances. Refer to 29 CFR 1910.111 Storage and Handling of Anhydrous Ammonia, 29 CFR 1910.119 Process Safety Management of Highly Hazardous Materials and the current ANSI standard K61.1, Safety Requirements for the Storage and Handling of Anhydrous Ammonia for additional information.

**Storage Conditions:** Store in a dry, cool and well-ventilated place. Keep in fireproof place. Store locked up. Storage containers should have safety relief valves. Note that many materials, particularly plastics, become brittle upon contact with liquid ammonia.

**Incompatible Materials:** Strong bases. Strong oxidizers. strong acids. Metals. Metal salts. Organic materials. Hypochlorites.

**Storage Area:** Post readily visible warning signs in the storage area listing emergency measures. Water hoses should be readily available to disperse vapors in case of a spill.

**7.3. Specific End Use(s)** Not available

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

| **Ammonia (7664-41-7)** | | |
|---|---|---|
| **Mexico** | OEL TWA (mg/m³) | 18 mg/m³ |
| **Mexico** | OEL TWA (ppm) | 25 ppm |
| **Mexico** | OEL STEL (mg/m³) | 27 mg/m³ |
| **Mexico** | OEL STEL (ppm) | 35 ppm |
| **USA ACGIH** | ACGIH TWA (ppm) | 25 ppm |
| **USA ACGIH** | ACGIH STEL (ppm) | 35 ppm |
| **USA OSHA** | OSHA PEL (TWA) (mg/m³) | 35 mg/m³ |
| **USA OSHA** | OSHA PEL (TWA) (ppm) | 50 ppm |
| **USA NIOSH** | NIOSH REL (TWA) (mg/m³) | 18 mg/m³ |
| **USA NIOSH** | NIOSH REL (TWA) (ppm) | 25 ppm |
| **USA NIOSH** | NIOSH REL (STEL) (mg/m³) | 27 mg/m³ |
| **USA NIOSH** | NIOSH REL (STEL) (ppm) | 35 ppm |
| **USA IDLH** | US IDLH (ppm) | 300 ppm |
| **Alberta** | OEL STEL (mg/m³) | 24 mg/m³ |
| **Alberta** | OEL STEL (ppm) | 35 ppm |
| **Alberta** | OEL TWA (mg/m³) | 17 mg/m³ |
| **Alberta** | OEL TWA (ppm) | 25 ppm |
| **British Columbia** | OEL STEL (ppm) | 35 ppm |
| **British Columbia** | OEL TWA (ppm) | 25 ppm |
| **Manitoba** | OEL STEL (ppm) | 35 ppm |
| **Manitoba** | OEL TWA (ppm) | 25 ppm |
| **New Brunswick** | OEL STEL (mg/m³) | 24 mg/m³ |
| **New Brunswick** | OEL STEL (ppm) | 35 ppm |
| **New Brunswick** | OEL TWA (mg/m³) | 17 mg/m³ |
| **New Brunswick** | OEL TWA (ppm) | 25 ppm |
| **Newfoundland & Labrador** | OEL STEL (ppm) | 35 ppm |
| **Newfoundland & Labrador** | OEL TWA (ppm) | 25 ppm |
| **Nova Scotia** | OEL STEL (ppm) | 35 ppm |
| **Nova Scotia** | OEL TWA (ppm) | 25 ppm |
| **Nunavut** | OEL STEL (mg/m³) | 24 mg/m³ |
| **Nunavut** | OEL STEL (ppm) | 35 ppm |
| **Nunavut** | OEL TWA (mg/m³) | 17 mg/m³ |
| **Nunavut** | OEL TWA (ppm) | 25 ppm |
| **Northwest Territories** | OEL STEL (mg/m³) | 24 mg/m³ |
| **Northwest Territories** | OEL STEL (ppm) | 35 ppm |
| **Northwest Territories** | OEL TWA (mg/m³) | 17 mg/m³ |
| **Northwest Territories** | OEL TWA (ppm) | 25 ppm |
| **Ontario** | OEL STEL (ppm) | 35 ppm |
| **Ontario** | OEL TWA (ppm) | 25 ppm |
| **Prince Edward Island** | OEL STEL (ppm) | 35 ppm |
| **Prince Edward Island** | OEL TWA (ppm) | 25 ppm |
| **Québec** | VECD (mg/m³) | 24 mg/m³ |
| **Québec** | VECD (ppm) | 35 ppm |
| **Québec** | VEMP (mg/m³) | 17 mg/m³ |
| **Québec** | VEMP (ppm) | 25 ppm |

| | | |
|---|---|---|
| **Saskatchewan** | OEL STEL (ppm) | 35 ppm |
| **Saskatchewan** | OEL TWA (ppm) | 25 ppm |
| **Yukon** | OEL STEL (mg/m³) | 30 mg/m³ |
| **Yukon** | OEL STEL (ppm) | 40 ppm |
| **Yukon** | OEL TWA (mg/m³) | 18 mg/m³ |
| **Yukon** | OEL TWA (ppm) | 25 ppm |

### 8.2. Exposure Controls

**Appropriate Engineering Controls:** Gas detectors should be used when flammable gases/vapors may be released. Gas detectors should be used when toxic gases may be released. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use explosion-proof equipment. Ensure all national/local regulations are observed.

**Personal Protective Equipment:** Protective goggles. Gloves. Protective clothing. Insufficient ventilation: wear respiratory protection. Face shield.

**Materials for Protective Clothing:** Chemically resistant materials and fabrics.

**Hand Protection:** Wear chemically resistant protective gloves.

**Eye Protection:** Chemical safety goggles.

**Skin and Body Protection:** Wear suitable protective clothing.

**Respiratory Protection:** If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

**Thermal Hazard Protection:** Wear cold insulating gloves.

**Other Information:** When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

| | | |
|---|---|---|
| **Physical State** | : | Gas |
| **Appearance** | : | Colorless liquid or gas |
| **Odor** | : | Pungent odor considered suffocating |
| **Odor Threshold** | : | 1 - 50 ppm in humans |
| **pH** | : | 10.6 - 11.6 (0.02-1.7% aqueous ammonia solution) |
| **Evaporation Rate** | : | Not available |
| **Melting Point** | : | -108 °F (- 77 °C) |
| **Freezing Point** | : | Not available |
| **Boiling Point** | : | -28.1 °F (- 33.4 °C) |
| **Flash Point** | : | Not available |
| **Auto-ignition Temperature** | : | 1,204 °F (651 °C) |
| **Decomposition Temperature** | : | Not available |
| **Flammability (solid, gas)** | : | Not available |
| **Lower Flammable Limit** | : | 16 % (by volume in air) |
| **Upper Flammable Limit** | : | 25 % (by volume in air) |
| **Vapor Pressure** | : | 8.5 atm at 68°F (20°C) |
| **Relative Vapor Density at 20 °C** | : | 0.597 (at 32°F and 760 mmHg) (lighter than air) |
| **Relative Density** | : | Not available |
| **Specific Gravity** | : | 0.62 at 60°F (16°C) |
| **Solubility** | : | Soluble in water.<br>Water: 51 g at 68°F (20°C) |
| **Partition Coefficient: N-Octanol/Water** | : | - 1.14 at 68°F (25°C) |
| **Viscosity** | : | 0.475 cP at -92°F (-69°C) |
| **Explosion Data – Sensitivity to Mechanical Impact** | : | Not expected to present an explosion hazard due to mechanical impact. |
| **Explosion Data – Sensitivity to Static Discharge** | : | Not expected to present an explosion hazard due to static discharge. |

## SECTION 10: STABILITY AND REACTIVITY

**10.1. Reactivity:** Corrosive to copper and aluminum, including their alloys, and galvanized surfaces.

**10.2. Chemical Stability:** Flammable gas. Contains gas under pressure; may explode if heated. Can form explosive mixture with air.

**10.3. Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

**10.4. Conditions to Avoid:** Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.

**10.5. Incompatible Materials:** Strong acids. Strong bases. Strong oxidizers. Metals. Organic materials. Hypochlorites. Metal salts.

**10.6. Hazardous Decomposition Products:** Nitrogen oxides.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on Toxicological Effects - Product

**Acute Toxicity:** Inhalation:gas: Toxic if inhaled.

**LD50 and LC50 Data:**

| **Anhydrous Ammonia ( \f )7664-41-7** | |
|---|---|
| **ATE US (gases)** | 2,000.10 ppmV/4h |

**Skin Corrosion/Irritation:** Causes severe skin burns and eye damage.

**pH:** 10.6 - 11.6 (0.02-1.7% aqueous ammonia solution)

**Serious Eye Damage/Irritation:** Causes serious eye damage.

**pH:** 10.6 - 11.6 (0.02-1.7% aqueous ammonia solution)

**Respiratory or Skin Sensitization:** Not classified

**Germ Cell Mutagenicity:** Not classified

**Teratogenicity:** Not classified

**Carcinogenicity:** Not classified

**Specific Target Organ Toxicity (Repeated Exposure):** Not classified

**Reproductive Toxicity:** Not classified

**Specific Target Organ Toxicity (Single Exposure):** May cause respiratory irritation.

**Aspiration Hazard:** Not classified

**Symptoms/Injuries After Inhalation:** Toxic if inhaled.

**Symptoms/Injuries After Skin Contact:** Corrosive. Causes burns. Symptoms may include: Redness. Pain. Serious skin burns. Blisters.

**Symptoms/Injuries After Eye Contact:** Causes permanent damage to the cornea, iris, or conjunctiva. Redness. Pain. Blurred vision. Severe burns.

**Symptoms/Injuries After Ingestion:** Ingestion is an unlikely route of exposure for a gas.

### 11.2. Information on Toxicological Effects - Ingredient(s)

**LD50 and LC50 Data:**

| **Ammonium hydroxide (1336-21-6)** | |
|---|---|
| **LD50 Oral Rat** | 350 mg/kg |
| **Ammonia (7664-41-7)** | |
| **LC50 Inhalation Rat** | 5.1 mg/l (Exposure time: 1 h) |
| **LC50 Inhalation Rat** | 2000 ppm/4h (Exposure time: 4 h) |

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecology - General:** Toxic to aquatic life with long lasting effects. Very toxic to aquatic life.

| **Ammonium hydroxide (1336-21-6)** | |
|---|---|
| **LC50 Fish 1** | 8.2 mg/l (Exposure time: 96 h - Species: Pimephales promelas) |
| **EC50 Daphnia 1** | 0.66 mg/l (Exposure time: 48 h - Species: water flea) |
| **EC50 Daphnia 2** | 0.66 mg/l (Exposure time: 48 h - Species: Daphnia pulex) |
| **Ammonia (7664-41-7)** | |
| **LC50 Fish 1** | 0.44 mg/l (Exposure time: 96 h - Species: Cyprinus carpio) |
| **EC50 Daphnia 1** | 25.4 mg/l (Exposure time: 48 h - Species: Daphnia magna) |
| **LC 50 Fish 2** | 0.26 - 4.6 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus) |

### 12.2. Persistence and Degradability

| Anhydrous Ammonia (7664-41-7) | |
|---|---|
| Persistence and Degradability | Not established. |

### 12.3. Bioaccumulative Potential

| Anhydrous Ammonia (7664-41-7) | |
|---|---|
| Bioaccumulative Potential | Not established. |
| **Ammonia (7664-41-7)** | |
| Log Pow | -1.14 (at 25 °C) |

### 12.4. Mobility in Soil

Not available

### 12.5. Other Adverse Effects

**Other Information:** Avoid release to the environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

**Waste Disposal Recommendations:** Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

**Additional Information:** Handle empty containers with care because residual vapors are flammable. Prevent runoff from entering drains, sewers or waterways.

**Ecology – Waste Materials:** This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

## SECTION 14: TRANSPORT INFORMATION

### 14.1. In Accordance with DOT

**Proper Shipping Name** : AMMONIA, ANHYDROUS
**Hazard Class** : 2.2
**Identification Number** : UN1005
**Label Codes** : 2.2


**ERG Number** : 125
**CERCLA RQ** : 100 lbs

### 14.2. In Accordance with IMDG

**Proper Shipping Name** : AMMONIA, ANHYDROUS
**Hazard Class** : 2
**Identification Number** : UN1005
**Label Codes** : 2.3,8
**EmS-No. (Fire)** : F-C
**EmS-No. (Spillage)** : S-U


### 14.3. In Accordance with IATA

**Proper Shipping Name** : AMMONIA, ANHYDROUS
**Identification Number** : UN1005
**Hazard Class** : 2
**Label Codes** : 2.3,8
**ERG Code (IATA)** : 2CP


### 14.4. In Accordance with TDG

**Proper Shipping Name** : ANHYDROUS AMMONIA
**Hazard Class** : 2.3
**Identification Number** : UN1005
**Label Codes** : 2.3,8
**ERP** : >3000 L

## SECTION 15: REGULATORY INFORMATION

### 15.1. US Federal Regulations

| **Anhydrous Ammonia (7664-41-7)** | |
|---|---|
| **SARA Section 311/312 Hazard Classes** | Immediate (acute) health hazard<br>Fire hazard<br>Sudden release of pressure hazard |

| **Ammonium hydroxide (1336-21-6)** | |
|---|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |
| **SARA Section 311/312 Hazard Classes** | Immediate (acute) health hazard |

| **Ammonia (7664-41-7)** | |
|---|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory<br>Listed on the United States SARA Section 302<br>Listed on United States SARA Section 313 | |
| **SARA Section 302 Threshold Planning Quantity (TPQ)** | 500 |
| **SARA Section 311/312 Hazard Classes** | Fire hazard<br>Immediate (acute) health hazard<br>Sudden release of pressure hazard |
| **SARA Section 313 - Emission Reporting** | 1.0 % (includes anhydrous Ammonia and aqueous Ammonia from water dissociable Ammonium salts and other sources, 10% of total aqueous Ammonia is reportable under this listing) |

### 15.2. US State Regulations

| **Ammonium hydroxide (1336-21-6)** |
|---|
| U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities |
| U.S. - Louisiana - Reportable Quantity List for Pollutants |
| U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1 |
| U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2 |
| U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity |
| U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1 |
| U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2 |
| RTK - U.S. - Massachusetts - Right To Know List |
| U.S. - Massachusetts - Toxics Use Reduction Act |
| U.S. - Michigan - Polluting Materials List |
| U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances |
| RTK - U.S. - New Jersey - Right to Know Hazardous Substance List |
| U.S. - New Jersey - Special Health Hazards Substances List |
| U.S. - New Jersey - TCPA - Extraordinarily Hazardous Substances (EHS) |
| U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances |
| RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List |
| RTK - U.S. - Pennsylvania - RTK (Right to Know) List |
| U.S. - Texas - Effects Screening Levels - Long Term |
| U.S. - Texas - Effects Screening Levels - Short Term |

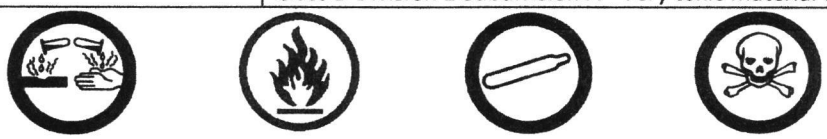
| **Ammonia (7664-41-7)** |
|---|
| U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Acute |
| U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Chronic |
| U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728) |
| U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min) |
| U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr) |
| U.S. - Connecticut - Water Quality Standards - Acute Freshwater Aquatic Life Criteria |
| U.S. - Connecticut - Water Quality Standards - Acute Saltwater Aquatic Life Criteria |
| U.S. - Connecticut - Water Quality Standards - Chronic Freshwater Aquatic Life Criteria |
| U.S. - Connecticut - Water Quality Standards - Chronic Saltwater Aquatic Life Criteria |
| U.S. - Delaware - Accidental Release Prevention Regulations - Sufficient Quantities |

U.S. - Delaware - Accidental Release Prevention Regulations - Threshold Quantities
U.S. - Delaware - Accidental Release Prevention Regulations - Toxic Endpoints
U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - Florida - Essential Chemicals List
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)
U.S. - Idaho - Occupational Exposure Limits - TWAs
U.S. - Louisiana - Reportable Quantity List for Pollutants
U.S. - Maine - Air Pollutants - Criteria Pollutants
U.S. - Massachusetts - Allowable Ambient Limits (AALs)
U.S. - Massachusetts - Allowable Threshold Concentrations (ATCs)
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2
U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2
RTK - U.S. - Massachusetts - Right To Know List
U.S. - Massachusetts - Threshold Effects Exposure Limits (TELs)
U.S. - Massachusetts - Toxics Use Reduction Act
U.S. - Michigan - Occupational Exposure Limits - STELs
U.S. - Michigan - Polluting Materials List
U.S. - Michigan - Process Safety Management Highly Hazardous Chemicals
U.S. - Minnesota - Chemicals of High Concern
U.S. - Minnesota - Hazardous Substance List
U.S. - Minnesota - Permissible Exposure Limits - STELs
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual
U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances
U.S. - New Jersey - Environmental Hazardous Substances List
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New Jersey - Special Health Hazards Substances List
U.S. - New Jersey - TCPA - Extraordinarily Hazardous Substances (EHS)
U.S. - New Jersey - Water Quality - Ground Water Quality Criteria
U.S. - New Jersey - Water Quality - Practical Quantitation Levels (PQLs)
U.S. - New Mexico - Precursor Chemicals
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
U.S. - North Carolina - Control of Toxic Air Pollutants
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 1-Hour
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour
U.S. - Ohio - Accidental Release Prevention - Threshold Quantities
U.S. - Ohio - Extremely Hazardous Substances - Threshold Quantities
U.S. - Oregon - Permissible Exposure Limits - TWAs
U.S. - Oregon - Precursor Chemicals
RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
RTK - U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - 1-Hour
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - 24-Hour
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - Annual
U.S. - Rhode Island - Water Quality Standards - Acute Freshwater Aquatic Life Criteria
U.S. - Rhode Island - Water Quality Standards - Acute Saltwater Aquatic Life Criteria
U.S. - Rhode Island - Water Quality Standards - Chronic Freshwater Aquatic Life Criteria
U.S. - Rhode Island - Water Quality Standards - Chronic Saltwater Aquatic Life Criteria
U.S. - Tennessee - Occupational Exposure Limits - STELs
U.S. - Texas - Effects Screening Levels - Long Term

| |
|---|
| U.S. - Texas - Effects Screening Levels - Short Term |
| U.S. - Vermont - Permissible Exposure Limits - STELs |
| U.S. - Virginia - Water Quality Standards - Acute Freshwater Aquatic Life |
| U.S. - Virginia - Water Quality Standards - Acute Saltwater Aquatic Life |
| U.S. - Virginia - Water Quality Standards - Chronic Freshwater Aquatic Life |
| U.S. - Virginia - Water Quality Standards - Chronic Saltwater Aquatic Life |
| U.S. - Virginia - Water Quality Standards - Public Water Supply Effluent Limits |
| U.S. - Virginia - Water Quality Standards - Surface Waters Not Used for the Public Water Supply Effluent Limits |
| U.S. - Washington - Permissible Exposure Limits - STELs |
| U.S. - Washington - Permissible Exposure Limits - TWAs |
| U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 25 Feet to Less Than 40 Feet |
| U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 40 Feet to Less Than 75 Feet |
| U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 75 Feet or Greater |
| U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights Less Than 25 Feet |
| U.S. - Wyoming - Process Safety Management - Highly Hazardous Chemicals |
| U.S. - Alaska - Water Quality Standards - Acute Aquatic Life Criteria for Fresh Water |
| U.S. - Alaska - Water Quality Standards - Chronic Aquatic Life Criteria for Fresh Water |
| U.S. - Alaska - Water Quality Standards - Acute Aquatic Life Criteria for Marine Water |
| U.S. - Alaska - Water Quality Standards - Chronic Aquatic Life Criteria for Marine Water |
| U.S. - Alaska - Ambient Air Quality Standards |

### 15.3. Canadian Regulations

| **Anhydrous Ammonia (7664-41-7)** | |
|---|---|
| WHMIS Classification | Class E - Corrosive Material<br>Class B - Flammable Gas<br>Class A - Compressed Gas<br>Class D Division 1 Subdivision A - Very toxic material causing immediate and serious toxic effects |



| **Ammonium hydroxide (1336-21-6)** | |
|---|---|
| Listed on the Canadian DSL (Domestic Substances List)<br>Listed on the Canadian IDL (Ingredient Disclosure List) | |
| IDL Concentration 1 % | |
| WHMIS Classification | Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects<br>Class E - Corrosive Material<br>Class D Division 2 Subdivision B - Toxic material causing other toxic effects |

| **Ammonia (7664-41-7)** | |
|---|---|
| Listed on the Canadian DSL (Domestic Substances List)<br>Listed on the Canadian IDL (Ingredient Disclosure List) | |
| IDL Concentration 1 % | |
| WHMIS Classification | Class A - Compressed Gas<br>Class B Division 1 - Flammable Gas<br>Class D Division 1 Subdivision A - Very toxic material causing immediate and serious toxic effects<br>Class E - Corrosive Material |

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

## SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Revision Date** : 4 June 2015

**Revision Comments** : Section 1.1 updated
Section 14.1 updated
Section 14.4 updated
Section 15.3 updated

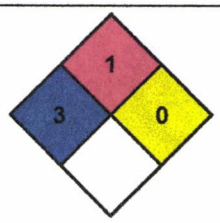
**GHS Full Text Phrases**:

| | |
|---|---|
| Acute Tox. 3 (Inhalation: gas) | Acute toxicity (inhalation: gas) Category 3 |
| Acute Tox. 4 (Oral) | Acute toxicity (oral) Category 4 |
| Aquatic Acute 1 | Hazardous to the aquatic environment - Acute Hazard Category 1 |
| Aquatic Chronic 2 | Hazardous to the aquatic environment - Chronic Hazard Category 2 |
| Eye Dam. 1 | Serious eye damage/eye irritation Category 1 |
| Flam. Gas 2 | Flammable gases Category 2 |
| Liquefied gas | Gases under pressure Liquefied gas |
| Skin Corr. 1B | Skin corrosion/irritation Category 1B |
| STOT SE 3 | Specific target organ toxicity (single exposure) Category 3 |
| H221 | Flammable gas |
| H280 | Contains gas under pressure; may explode if heated |
| H302 | Harmful if swallowed |
| H314 | Causes severe skin burns and eye damage |
| H318 | Causes serious eye damage |
| H331 | Toxic if inhaled |
| H335 | May cause respiratory irritation |
| H400 | Very toxic to aquatic life |
| H411 | Toxic to aquatic life with long lasting effects |

**NFPA Health Hazard** : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

**NFPA Fire Hazard** : 1 - Must be preheated before ignition can occur.

**NFPA Reactivity** : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.




HMIS III Rating

**Health** : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

**Flammability** : 1 Slight Hazard

**Physical** : 0 Minimal Hazard

**Party Responsible for the Preparation of This Document**
CF Industries, Corporate EHS Department, 847-405-2400

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*

*CF believes the information contained herein is accurate; however, CF makes no guarantees or warranties with respect to such accuracy and assumes no liability in connection with the use of the information contained herein by any party. The provision of the information contained herein by CF is not intended to be and should not be construed as legal advice or as ensuring compliance by other parties. Judgments as to the suitability of the information contained herein for the party's own use or purposes are solely the responsibility of that party. Any party handling, transferring, transporting, storing, applying or otherwise using this product should review thoroughly all applicable laws, rules, regulations, standards and good engineering practices. Such thorough review should occur before the party handles, transfers, transports, stores, applies or otherwise uses this product.*

# Hazardous Waste Site Info Verification Report for Inspector

*February 23, 2016*

PROCEDURES for Inspectors/Investigators/etc. performing Site Visits:
Present the Facility representative with a copy of their Site Info Verification Report (Iowa facilities only).

If during the course of the site visit, the inspector/investigator becomes aware of any changes which should be made to the information printed on this form, please make the corrections and return the form to Elizabeth Koesterer, AWMD/WEMM.

Our instructions to them are printed on their Site Info Verification Report, and should be self explanatory. If the Iowa facility wants to revise their Site Info Verification Report, they can do so and mail it back to EPA R7, or have the inspector deliver it.

If a Kansas, Missouri or Nebraska facility wants to change their information, they must fill out a RCRA Subtitle C Site Identification Form (or equivalent State form) and mail it to the appropriate State.

| | |
|---|---|
| **EPA RCRA ID Number:** | **IAR000007310** |
| **Name of Company/Site:** | **ANDERSONS SERGEANT BLUFF PLANT** |
| Location of Site: | 2717 PORT NEAL CIR<br>SERGEANT BLUFF, IA 51054<br>WOODBURY County |
| Land Type: | Private |
| NAICS: | 325314 - FERTILIZER (MIXING ONLY) MANUFACTURING<br>325312 - PHOSPHATIC FERTILIZER MANUFACTURING |
| Mailing Address: | 200 S DERBY LN<br>NORTH SIOUX CITY, SD 57049 |
| Site Contact: | SHAWN TURNER |
| Job Title: | PLANT MANAGER |
| Address: | 2717 PORT NEAL CIR<br>SERGEANT BLUFF, IA 51054 |
| Email: | SHAWN_TURNER@ANDERSONSINC.COM |
| Phone Number: | 712-281-0259 |
| Current Owner of Site: | THE ANDERSONS INC |
| Phone Number: | 419-893-5050 |
| Owner Type: | Private |
| Current Operator of Site: | THE ANDERSONS |
| Operator Type: | Private |

TYPE(S) OF REGULATED ACTIVITY: ~~Federal Small Quantity Generator~~ CONDITIONALLY EXEMPT SMALL SQH UNIVERSAL WASTE, USED OIL QUANTITY GENERATOR GENERATOR

Date of Site Visit: 08/03/2016
Name of Inspector (Please print): CLIFFORD ALAN NELLES
(Check one): [ ] EPA R7 ENST [X] EPA R7 Contractor [ ] NOWCC/SEE Investigator
Signature of Inspector/Investigator: Clifford A. Nelles

# Hazardous Waste Site Info Verification Report for Inspector

*February 23, 2016*

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If during the course of the site visit, the inspector/investigator becomes aware of any changes which should be made to the information printed on this form, please make the corrections and return the form to Elizabeth Koesterer, AWMD/WEMM.

Our instructions to them are printed on their Site Info Verification Report, and should be self explanatory. If the Iowa facility wants to revise their Site Info Verification Report, they can do so and mail it back to EPA R7, or have the inspector deliver it.

If a Kansas, Missouri or Nebraska facility wants to change their information, they must fill out a RCRA Subtitle C Site Identification Form (or equivalent State form) and mail it to the appropriate State.

Hazardous Wastes Handled: D001 ~~D002~~ CAN ~~D018~~ CAN ~~D040~~ CAN

I 03/22/10 3 1st N 03/06/00 N 10/20/15 2

Certified by Notification on 10/20/15 by
SHAWN TURNER 09/25/15
PLANT MANAGER

Date of Site Visit: 08/03/2016
Name of Inspector (Please print): CLIFFORD ALAN NELLES
(Check one): [ ] EPA R7 ENST [X] EPA R7 Contractor [ ] NOWCC/SEE Investigator
Signature of Inspector/Investigator: Clifford A. Nelles

CHRT 24522

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) I5 1500186834-009 SC PPW 12/1/2008 Form Approved. OMB No. 2050-0039

| UNIFORM HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Manifest Tracking Number |
|---|---|---|---|---|
| | IAR000007310 | 1 | (800) 483-3718 | 002086198 FLE |

**GENERATOR**

5. Generator's Name and Mailing Address

**Nulex Plant**
**2717 Port Neal Rd**
**Sergeant Bluff, IA 51054**
Generator's Phone: (712) 277-2011

Generator's Site Address (if different than mailing address)

**SAME**

6. Transporter 1 Company Name — U.S. EPA ID Number

**Clean Harbors Environmental Services Inc** — MAD039322250

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number

**Clean Harbors Deer Trail LLC**
**108555 East Highway 36**
**Deer Trail, CO 80105**
Facility's Phone: (970) 386-2293

COD991300484

| 9a. HM | 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | 13. Waste Codes |
|---|---|---|---|---|---|---|
| X | 1. RQ, UN1813, POTASSIUM HYDROXIDE, SOLID, 8, PG II (1000) | 1 | CM | 1K | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

14. Special Handling Instructions and Additional Information

1.940238 ERG#154 CHRT 26522

8/300

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Shawn Turner — Signature: Shawn Turner — Month 02 Day 14 Year 15

**INT'L**

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Kevin Alden — Signature: Kevin Alden — Month 2 Day 14 Year 15

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Attachment 10 Page 1 of 4 — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

| 1. | 2. | 3. | 4. |
|---|---|---|---|
| H132 | | | |

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Karen Mick — Signature: Karen Mick — Month 2 Day 17 Year 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

**Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.**

safety-kleen.
A Clean Harbors Company

# WASTE MATERIAL PROFILE SHEET

## Profile No. 940238

**A. GENERAL INFORMATION**

GENERATOR EPA ID #/REGISTRATION # ***PENDING*** GENERATOR NAME: ***Nulex Plant***

GENERATOR CODE (Assigned by Clean Harbors) ***NU10891*** CITY ***Sergeant Bluff*** STATE/PROVINCE ***IA*** ZIP/POSTAL CODE ***51054***

ADDRESS ***2717 Port Neal Rd*** PHONE: **(712) 277-2011**

CUSTOMER CODE (Assigned by Clean Harbors) ***KA15826*** CUSTOMER NAME: ***Kay Flo Services***

ADDRESS ***200 S Derby Ln*** CITY ***North Sioux City*** STATE/PROVINCE ***SD*** ZIP/POSTAL CODE ***57049***

**B. WASTE DESCRIPTION**

WASTE DESCRIPTION: ***Dry Caustic Potash***

PROCESS GENERATING WASTE: **Original Manufacturer container**

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER ? **No**

**C. PHYSICAL PROPERTIES (at 25C or 77F)**

**PHYSICAL STATE**
- [x] SOLID WITHOUT FREE LIQUID
- [ ] POWDER
- [ ] MONOLITHIC SOLID
- [ ] LIQUID WITH NO SOLIDS
- [ ] LIQUID/SOLID MIXTURE
  - % FREE LIQUID
  - % SETTLED SOLID
  - % TOTAL SUSPENDED SOLID
- [ ] SLUDGE
- [ ] GAS/AEROSOL

**NUMBER OF PHASES/LAYERS**

1 2 3

% BY VOLUME (Approx.)

TOP ***0.00***

MIDDLE ***0.00***

BOTTOM ***0.00***

**VISCOSITY (If liquid present)**
- 1 - 100 (e.g. Water)
- 101 - 500 (e.g. Motor Oil)
- 501 - 10,000 (e.g. Molasses)
- > 10,000

**COLOR**

***white***

**ODOR**
- [ ] NONE
- [x] MILD
- [ ] STRONG

Describe:

**BOILING POINT °F (°C)**
- <= 95 (<=35)
- 95 - 100 (35-38)
- 101 - 129 (38-54)
- >= 130 (>54)

**MELTING POINT °F (°C)**
- < 140 (<60)
- 140-200 (60-93)
- [x] > 200 (>93)

**TOTAL ORGANIC CARBON**
- <= 1%
- 1-9%
- [x] >= 10%

**FLASH POINT °F (°C)**
- < 73 (<23)
- 73 - 100 (23-38)
- 101 -140 (38-60)
- 141 -200 (60-93)
- > 200 (>93)

**pH**
- <= 2
- 2.1 - 6.9
- 7 (Neutral)
- 7.1 - 12.4
- [x] >= 12.5

**SPECIFIC GRAVITY**
- < 0.8 (e.g. Gasoline)
- 0.8-1.0 (e.g. Ethanol)
- 1.0 (e.g. Water)
- 1.0-1.2 (e.g. Antifreeze)
- [x] > 1.2 (e.g. Methylene Chloride)

**ASH**
- < 0.1
- 0.1 - 1.0
- 1.1 - 5.0
- 5.1 - 20.0
- > 20
- [x] Unknown

**BTU/LB (MJ/kg)**
- < 2,000 (<4.6)
- 2,000-5,000 (4.6-11.6)
- 5,000-10,000 (11.6-23.2)
- [x] > 10,000 (>23.2)

Actual:

**D. COMPOSITION** (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

| CHEMICAL | MIN | -- | MAX | UOM |
|---|---|---|---|---|
| POTASSIUM HYDROXIDE | 84.0000000 | -- | 92.0000000 | % |
| WATER (%) | 8.0000000 | -- | 16.0000000 | % |

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES [x] NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES [x] NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES [x] NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. ***G32*** SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. ***W004***

**E. CONSTITUENTS**

Are these values based on testing or knowledge? Knowledge Testing

If constituent concentrations are based on analytical testing, analysis must be provided. Please attach document(s) using the link on the Submit tab.

**Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.**

| RCRA | REGULATED METALS | REGULATORY LEVEL (mg/l) | TCLP mg/l | TOTAL | UOM | NOT APPLICABLE |
|---|---|---|---|---|---|---|
| D004 | ARSENIC | 5.0 | | | | ✔ |
| D005 | BARIUM | 100.0 | | | | ✔ |
| D006 | CADMIUM | 1.0 | | | | ✔ |
| D007 | CHROMIUM | 5.0 | | | | ✔ |
| D008 | LEAD | 5.0 | | | | ✔ |
| D009 | MERCURY | 0.2 | | | | ✔ |
| D010 | SELENIUM | 1.0 | | | | ✔ |
| D011 | SILVER | 5.0 | | | | ✔ |
| | **VOLATILE COMPOUNDS** | | | | | |
| D018 | BENZENE | 0.5 | | | | |
| D019 | CARBON TETRACHLORIDE | 0.5 | | | | |
| D021 | CHLOROBENZENE | 100.0 | | | | |
| D022 | CHLOROFORM | 6.0 | | | | |
| D028 | 1,2-DICHLOROETHANE | 0.5 | | | | |
| D029 | 1,1-DICHLOROETHYLENE | 0.7 | | | | |
| D035 | METHYL ETHYL KETONE | 200.0 | | | | |
| D039 | TETRACHLOROETHYLENE | 0.7 | | | | |
| D040 | TRICHLOROETHYLENE | 0.5 | | | | |
| D043 | VINYL CHLORIDE | 0.2 | | | | |
| | **SEMI-VOLATILE COMPOUNDS** | | | | | |
| D023 | o-CRESOL | 200.0 | | | | |
| D024 | m-CRESOL | 200.0 | | | | |
| D025 | p-CRESOL | 200.0 | | | | |
| D026 | CRESOL (TOTAL) | 200.0 | | | | |
| D027 | 1,4-DICHLOROBENZENE | 7.5 | | | | |
| D030 | 2,4-DINITROTOLUENE | 0.13 | | | | |
| D032 | HEXACHLOROBENZENE | 0.13 | | | | |
| D033 | HEXACHLOROBUTADIENE | 0.5 | | | | |
| D034 | HEXACHLOROETHANE | 3.0 | | | | |
| D036 | NITROBENZENE | 2.0 | | | | |
| D037 | PENTACHLOROPHENOL | 100.0 | | | | |
| D038 | PYRIDINE | 5.0 | | | | |
| D041 | 2,4,5-TRICHLOROPHENOL | 400.0 | | | | |
| D042 | 2,4,6-TRICHLOROPHENOL | 2.0 | | | | |
| | **PESTICIDES AND HERBICIDES** | | | | | |
| D012 | ENDRIN | 0.02 | | | | |
| D013 | LINDANE | 0.4 | | | | |
| D014 | METHOXYCHLOR | 10.0 | | | | |
| D015 | TOXAPHENE | 0.5 | | | | |
| D016 | 2,4-D | 10.0 | | | | |
| D017 | 2,4,5-TP (SILVEX) | 1.0 | | | | |
| D020 | CHLORDANE | 0.03 | | | | |
| D031 | HEPTACHLOR (AND ITS EPOXIDE) | 0.008 | | | | |

| OTHER CONSTITUENTS | MAX | UOM | NOT APPLICABLE |
|---|---|---|---|
| BROMINE | | | ✔ |
| CHLORINE | | | ✔ |
| FLUORINE | | | ✔ |
| IODINE | | | ✔ |
| SULFUR | | | ✔ |
| POTASSIUM | | | ✔ |
| SODIUM | | | ✔ |
| AMMONIA | | | ✔ |
| CYANIDE AMENABLE | | | ✔ |
| CYANIDE REACTIVE | | | ✔ |
| CYANIDE TOTAL | | | ✔ |
| SULFIDE REACTIVE | | | ✔ |

**HOCs**

✔ NONE
< 1000 PPM
>= 1000 PPM

**PCBs**

✔ NONE
< 50 PPM
>=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES ✔ NO

**ADDITIONAL HAZARDS**

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES ✔ NO (If yes, explain)

**CHOOSE ALL THAT APPLY**

| | | | |
|---|---|---|---|
| DEA REGULATED SUBSTANCES | EXPLOSIVE | FUMING | OSHA REGULATED CARCINOGENS |
| POLYMERIZABLE | RADIOACTIVE | ✔ REACTIVE MATERIAL | NONE OF THE ABOVE |

safety-kleen.
A Clean Harbors Company

Profile No. 940238

**F. REGULATORY STATUS**

YES ☑ NO USEPA HAZARDOUS WASTE?

YES ☑ NO DO ANY STATE WASTE CODES APPLY?

Texas Waste Code

YES ☑ NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

YES ☑ NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?

LDR CATEGORY: ***This is subject to LDR.***
VARIANCE INFO:

YES ☑ NO IS THIS A UNIVERSAL WASTE?

YES ☑ NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?

YES NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES ☑ NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

YES ☑ NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

YES ☑ NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

YES ☑ NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?

YES ☑ NO IS THIS CERCLA REGULATED (SUPERFUND ) WASTE ?

YES ☑ NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

YES NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?

What is the TAB quantity for your facility? Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data Knowledge Testing

Describe the knowledge :

**G. DOT/TDG INFORMATION**

DOT/TDG PROPER SHIPPING NAME:

**RQ, UN1813, POTASSIUM HYDROXIDE, SOLID, 8, PG II (1000)**

**H. TRANSPORTATION REQUIREMENTS**

ESTIMATED SHIPMENT FREQUENCY ☑ ONE TIME WEEKLY MONTHLY QUARTERLY YEARLY OTHER

**CONTAINERIZED**

*0-0* CONTAINERS/SHIPMENT

STORAGE CAPACITY:
CONTAINER TYPE:
CUBIC YARD BOX PALLET
TOTE TANK DRUM
OTHER:
DRUM SIZE:

**BULK LIQUID**

GALLONS/SHIPMENT: ***0 Min -0 Max*** GAL.

☑ **BULK SOLID**

SHIPMENT UOM: ☑ TON YARD

TONS/YARDS/SHIPMENT: ***1.00 Min - 4.00 Max***

**I. SPECIAL REQUEST**

COMMENTS OR REQUESTS:

**GENERATOR'S CERTIFICATION**

I certify that I am authorized to execute this document as an authorized agent. I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge. I also certify that any samples submitted are representative of the actual waste. If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

| AUTHORIZED SIGNATURE | NAME (PRINT) | TITLE | DATE |
|---|---|---|---|
| John E. Anderson | John E. Anderson | Process Engineering Manager | 2/2/15 |

** Sampled by Safety-Kleen (Clean Harbors) representative. Not sampled by John Anderson.

DSM SK SHIP# 217263456

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

**UNIFORM HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Manifest Tracking Number |
|---|---|---|---|
| IAR000007310 | 1 | 1-800-468-1760 | 005048286 SKS |

**GENERATOR**

5. Generator's Name and Mailing Address

Nulex Plant Nutra-Flo Sergeant Bluff Facility
200 S DERBY LANE
NORTH SIOUX CITY SD 57049-0000

Generator's Phone: 712-277-2011

Generator's Site Address (if different than mailing address)

Nulex Plant
2717 Port Neal Rd
SERGEANT BLUFF IA 51054-8537

6. Transporter 1 Company Name: SAFETY-KLEEN SYSTEMS, INC. U.S. EPA ID Number: TXR000081205

7. Transporter 2 Company Name: I & R Trucking U.S. EPA ID Number: MOR000501973

8. Designated Facility Name and Site Address

CLEAN HARBORS DEER TRAIL, LLC
100555 E HIGHWAY 36
DEER TRAIL, CO 80105

Facility's Phone: 970-386-2262 U.S. EPA ID Number: COD991300484

| 9a. HM | 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | 13. Waste Codes |
|---|---|---|---|---|---|---|
| X | 1. UN1760, WASTE CORROSIVE LIQUIDS, N.O.S., (POTASSIUM HYDROXIDE SOLUTION), 8, PG II | 1 | ~~DM~~ DF | 300 | ~~P~~ P | D002 |
| X | 2. UN1760, WASTE CORROSIVE LIQUIDS, N.O.S., (POTASSIUM HYDROXIDE SOLUTION), 8, PG II | 1 | ~~DM~~ DF | 40 | G | D002 |
| | 3. NONE, NOT DOT REGULATED MATERIAL, (WATER, DIRT), NONE | 1 | ~~DM~~ DF | 500 | ~~P~~ P | NONE |
| | 4. | | | | | |

14. Special Handling Instructions and Additional Information

TSD:DR 68278406 NU10891 CSG: 251332

1)ERG#154;2)ERG#154;
24 HR EMERGENCY #1-800-468-1760 (SK / TFI)
PUTH AS "AGENT FOR" BY SEN TO RETAIN LICENSED BUS CARRIERS AS NECESSARY

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nutra Flo by Melody Russo Signature: Melody Russo Month: 10 Day: 14 Year: 15

**INT'L**

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Richard Hill Signature: Month: 10 Day: 14 Year: 15

Transporter 2 Printed/Typed Name: Owner/Driver Signature: Month: 10 Day: 20 Year: 15

**DESIGNATED FACILITY**

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month: Day: Year:

Attachment 1, Page 1 of 2

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

| 1. | 2. | 3. | 4. |
|---|---|---|---|
| H132 | H132 | H132 | |

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Lindsay Quimby Signature: Month: 10 Day: 30 Year: 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

1)7656506/1048188 2)7656507/1048207 3)7653896/1048180

SAFETY-KLEEN 09/29/2015 PAGE:1
PLANT: - OSM LDR NOTIFICATION FORM 01:45:39
GENERATOR NAME: Nulex Plant MANIFEST NO.: 005045284 5
OR SALES SERVICE NO.:
SK Shipping #: 217263456 CUST#: NU10891
Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR part 268 land disposal restrictions (LDR).

A. GENERAL WASTE NOTIFICATION

LDR FORM LINE NO: 1 MANIFEST PAGE/LINE# 01/001 SKPRFL NO: 1048188
SKDOT#: 7656506
EPA WASTE CODES & LDR SUBCATEGORIES (IF ANY):
D002 CCW CORROSIVE CHARACTERISTIC WASTES
Treatability group: NNW Non-Waste Water
Waste Constituent Notification: None

LDR FORM LINE NO: 2 MANIFEST PAGE/LINE# 01/002 SKPRFL NO: 1048207
SKDOT#: 7656507
EPA WASTE CODES & LDR SUBCATEGORIES (IF ANY):
D002 CCW CORROSIVE CHARACTERISTIC WASTES
Treatability group: NNW Non-Waste Water
Waste Constituent Notification: None

LDR FORM LINE NO: 3 MANIFEST PAGE/LINE# 01/003 SKPRFL NO: 1048180
SKDOT#: 7653896

NOTES

Melody Russo
GENERATOR'S AUTHORIZED SIGNATURE

Melody Russo Sr. Env. Eng
NAME & TITLE (PRINTED OR TYPED)

10 / 14 / 15
DATE

PLANT: OSM CSG: REF#: SW:
TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSFE

Attachment 11 Page 2 of 2

OMB# 2050-0024; Expires 01/31/2017

**SEND COMPLETED FORM TO:** The Appropriate State or Regional Office.

# United States Environmental Protection Agency
# RCRA SUBTITLE C SITE IDENTIFICATION FORM

**1. Reason for Submittal** (MARK ALL BOX(ES) THAT APPLY)

**Reason for Submittal:**

- ☐ To provide an Initial Notification (first time submitting site identification information / to obtain an EPA ID number for this location)
- ☒ To provide a Subsequent Notification (to update site identification information for this location)
- ☐ As a component of a First RCRA Hazardous Waste Part A Permit Application
- ☐ As a component of a Revised RCRA Hazardous Waste Part A Permit Application (Amendment #_____)
- ☒ As a component of the Hazardous Waste Report (If marked, see sub-bullet below)
  - ☒ Site was a TSD facility and/or generator of >1,000 kg of hazardous waste, >1 kg of acute hazardous waste, or >100 kg of acute hazardous waste spill cleanup in one or more months of the report year (or State equivalent LQG regulations)

**2. Site EPA ID Number**

**EPA ID Number:** I A R 0 0 0 0 0 7 3 1 0

**3. Site Name**

**Name:** The Andersons Sergeant Bluff Plant

**4. Site Location Information**

**Street Address:** 2717 Port Neal Circle

**City, Town, or Village:** Sergeant Bluff | **County:** Woodbury

**State:** IA | **Country:** USA | **Zip Code:** 51054

**5. Site Land Type**

☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

**6. NAICS Code(s) for the Site (at least 5-digit codes)**

A. 3 2 5 3 1 1 | C.

B. | D.

**7. Site Mailing Address**

**Street or P.O. Box:** 200 S. Derby Lane

**City, Town, or Village:** North Sioux City

**State:** SD | **Country:** USA | **Zip Code:** 57049

**8. Site Contact Person**

**First Name:** Shawn | **MI:** | **Last:** Turner

**Title:** Plant Manager

**Street or P.O. Box:** 2717 Port Neal Circle

**City, Town or Village:** Sergeant Bluff

**State:** IA | **Country:** USA | **Zip Code:** 51054

**Email:** Shawn_Turner@AndersonsInc.com

**Phone:** 712-281-0259 | **Ext.:** | **Fax:**

**9. Legal Owner and Operator of the Site**

**A. Name of Site's Legal Owner:** The Andersons, Inc. | **Date Became Owner:** 5/18/15

**Owner Type:** ☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

**Street or P.O. Box:** PO Box 119

**City, Town, or Village:** Maumee | **Phone:** 419-893-5050

**State:** OH | **Country:** USA | **Zip Code:** 43537

**B. Name of Site's Operator:** Nutra-Flo Company | **Date Became Operator:** 5/18/15

**Operator Type:** ☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

**10. Type of Regulated Waste Activity (at your site)**
**Mark "Yes" or "No" for all current activities (as of the date submitting the form); complete any additional boxes as instructed.**

**A. Hazardous Waste Activities; Complete all parts 1-10.**

Y ☑ N ☐ **1. Generator of Hazardous Waste**
**If "Yes," mark only one of the following – a, b, or c.**

- ☑ a. LQG: Generates, in any calendar month, 1,000 kg/mo (2,200 lbs/mo.) or more of hazardous waste; **or** Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lbs/mo) of acute hazardous waste; **or** Generates, in any calendar month, **or** accumulates at any time, more than 100 kg/mo (220 lbs/mo) of acute hazardous spill cleanup material.
- ☐ b. SQG: 100 to 1,000 kg/mo (220 – 2,200 lbs/mo) of non-acute hazardous waste.
- ☐ c. CESQG: Less than 100 kg/mo (220 lbs/mo) of non-acute hazardous waste.

**If "Yes" above, indicate other generator activities in 2-10.**

Y ☑ N ☐ **2. Short-Term Generator** (generate from a short-term or one-time event and not from on-going processes). If "Yes," provide an explanation in the Comments section.

Y ☐ N ☑ **3. United States Importer of Hazardous Waste**

Y ☐ N ☑ **4. Mixed Waste (hazardous and radioactive) Generator**

Y ☐ N ☑ **5. Transporter of Hazardous Waste**
**If "Yes," mark all that apply.**

- ☐ a. Transporter
- ☐ b. Transfer Facility (at your site)

Y ☐ N ☑ **6. Treater, Storer, or Disposer of Hazardous Waste** Note: A hazardous waste Part B permit is required for these activities.

Y ☐ N ☑ **7. Recycler of Hazardous Waste**

Y ☐ N ☑ **8. Exempt Boiler and/or Industrial Furnace**
**If "Yes," mark all that apply.**

- ☐ a. Small Quantity On-site Burner Exemption
- ☐ b. Smelting, Melting, and Refining Furnace Exemption

Y ☐ N ☑ **9. Underground Injection Control**

Y ☐ N ☑ **10. Receives Hazardous Waste from Off-site**

**B. Universal Waste Activities; Complete all parts 1-2.**

Y ☐ N ☑ **1. Large Quantity Handler of Universal Waste (you accumulate 5,000 kg or more) [refer to your State regulations to determine what is regulated]. Indicate types of universal waste managed at your site. If "Yes," mark all that apply.**

- a. Batteries ☐
- b. Pesticides ☐
- c. Mercury containing equipment ☐
- d. Lamps ☐
- e. Other (specify) _____ ☐
- f. Other (specify) _____ ☐
- g. Other (specify) _____ ☐

Y ☐ N ☑ **2. Destination Facility for Universal Waste**
**Note:** A hazardous waste permit may be required for this activity.

**C. Used Oil Activities; Complete all parts 1-4.**

Y ☐ N ☑ **1. Used Oil Transporter**
**If "Yes," mark all that apply.**

- ☐ a. Transporter
- ☐ b. Transfer Facility (at your site)

Y ☐ N ☑ **2. Used Oil Processor and/or Re-refiner**
**If "Yes," mark all that apply.**

- ☐ a. Processor
- ☐ b. Re-refiner

Y ☐ N ☑ **3. Off-Specification Used Oil Burner**

Y ☐ N ☑ **4. Used Oil Fuel Marketer**
**If "Yes," mark all that apply.**

- ☐ a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
- ☐ b. Marketer Who First Claims the Used Oil Meets the Specifications

**D. Eligible Academic Entities with Laboratories—Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to 40 CFR Part 262 Subpart K**

❖ You can ONLY Opt into Subpart K if:

- you are at least one of the following: a college or university; a teaching hospital that is owned by or has a formal affiliation agreement with a college or university; or a non-profit research institute that is owned by or has a formal affiliation agreement with a college or university; AND
- you have checked with your State to determine if 40 CFR Part 262 Subpart K is effective in your state

Y☐ N☑ 1. Opting into or currently operating under 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories **See the item-by-item instructions for definitions of types of eligible academic entities. Mark all that apply:**

☐ **a. College or University**

☐ **b. Teaching Hospital that is owned by or has a formal written affiliation agreement with a college or university**

☐ **c. Non-profit Institute that is owned by or has a formal written affiliation agreement with a college or university**

Y☐ N☑ 2. Withdrawing from 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories

**11. Description of Hazardous Waste**

**A. Waste Codes for Federally Regulated Hazardous Wastes.** Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g., D001, D003, F007, U112). Use an additional page if more spaces are needed.

| | | | | | | |
|---|---|---|---|---|---|---|
| D001 | | | | | | |
| D002 | | | | | | |
| D006 | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**B. Waste Codes for State-Regulated (i.e., non-Federal) Hazardous Wastes.** Please list the waste codes of the State-Regulated hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**12. Notification of Hazardous Secondary Material (HSM) Activity**

Y ☐ N ☑ Are you notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 261.2(a)(2)(ii), 40 CFR 261.4(a)(23), (24), or (25)?

If "Yes," you must fill out the Addendum to the Site Identification Form: Notification for Managing Hazardous Secondary Material.

**13. Comments**

10.A.2.: Facility experienced a fire in 2015. As a result of fire and response activities, material was generated and contained.

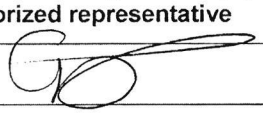
Waste characterization determined some of this material exhibited hazard characteristic(s), and was so profiled and disposed.

All of this waste was generated and disposed in 2015, and consisted of D002 and D006.

Report preparer and Environmental Manager: Melody Russo, 200 S. Derby Lane, North Sioux City, SD 57049,

melody_russo@andersonsinc.com, 712-635-7768

**14. Certification.** I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. For the RCRA Hazardous Waste Part A Permit Application, all owner(s) and operator(s) must sign (see 40 CFR 270.10(b) and 270.11).

| Signature of legal owner, operator, or an authorized representative | Name and Official Title (type or print) | Date Signed (mm/dd/yyyy) |
|---|---|---|
|  | Catherine M. White, Secretary, Nutra-Flo Company | 07/28/2016 |
| | | |
| | | |
| | | |

OMB# 2050-0024; Expires 01/31/2017

BEFORE COPYING FORM, ATTACH SITE IDENTIFICATION LABEL OR ENTER:

SITE NAME: The Andersons Sergeant Bluff Plant

EPA ID Number I A R 0 0 0 0 0 7 3 1 0

**U.S. ENVIRONMENTAL PROTECTION AGENCY**

2015 Hazardous Waste Report

**GM FORM**

**WASTE GENERATION AND MANAGEMENT**

**Sec. 1** A. Waste description: Potassium Hydroxide Solid material from fire clean up

B. EPA hazardous waste code(s): D 0 0 2

C. State hazardous waste code(s):

D. Source code: G 1 9

Management Method code for Source code G25:

E. Form code: W 3 1 9

F. Quantity generated in 2015: 3 9.0

UOM: T

Density: ☐ lbs/gal ☐ sg

G. Waste minimization code:

**Sec. 2** Was any of this waste that was generated at this facility treated, disposed, and/or recycled on site?

☐ Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1)
☒ No (SKIP TO SEC. 3)

| ON-SITE PROCESS SYSTEM 1 | | ON-SITE PROCESS SYSTEM 2 | |
|---|---|---|---|
| On-site Management Method code | Quantity treated, disposed, or recycled on site in 2015 | On-site Management Method code | Quantity treated, disposed, or recycled on site in 2015 |
| H | | H | |

**Sec. 3** A. Was any of this waste shipped off site in 2015 for treatment, disposal, or recycling?

☒ Yes (CONTINUE TO ITEM B)
☐ No (FORM IS COMPLETE)

| | B. EPA ID No. of facility to which waste was shipped | C. Off-site Management Method code shipped to | D. Total quantity shipped in 2015 |
|---|---|---|---|
| Site 1 | C O D 9 9 1 3 0 0 4 8 4 | H 1 3 2 | 3 9.0 |
| Site 2 | | | |
| Site 3 | | | |

Comments:

Fire and response compromised bags of Potassium Hydroxide that were stored. Fire initiation was unrelated to chemical storage.

OMB# 2050-0024; Expires 01/31/2017

BEFORE COPYING FORM, ATTACH SITE IDENTIFICATION LABEL OR ENTER:

SITE NAME: The Andersons Sergeant Bluff Plant

EPA ID Number: I A R 0 0 0 0 0 7 3 1 0

**U.S. ENVIRONMENTAL PROTECTION AGENCY**

2015 Hazardous Waste Report

**GM FORM**

**WASTE GENERATION AND MANAGEMENT**

**Sec. 1** A. Waste description: Corrosive liquid containing Potassium Hydroxide from fire clean up

B. EPA hazardous waste code(s): D 0 0 2

C. State hazardous waste code(s):

D. Source code: G 3 2

Management Method code for Source code G25:

E. Form code: W 1 1 0

F. Quantity generated in 2015: 1 5 9 7 8 0.0

UOM: G

Density: 1.0 0 ☐ lbs/gal ☑ sg

G. Waste minimization code:

**Sec. 2** Was any of this waste that was generated at this facility treated, disposed, and/or recycled on site?

☐ Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1)
☑ No (SKIP TO SEC. 3)

| ON-SITE PROCESS SYSTEM 1 | | ON-SITE PROCESS SYSTEM 2 | |
|---|---|---|---|
| On-site Management Method code | Quantity treated, disposed, or recycled on site in 2015 | On-site Management Method code | Quantity treated, disposed, or recycled on site in 2015 |
| H | | H | |

**Sec. 3** A. Was any of this waste shipped off site in 2015 for treatment, disposal, or recycling?

☑ Yes (CONTINUE TO ITEM B)
☐ No (FORM IS COMPLETE)

| | B. EPA ID No. of facility to which waste was shipped | C. Off-site Management Method code shipped to | D. Total quantity shipped in 2015 |
|---|---|---|---|
| Site 1 | O K D 0 6 5 4 3 8 3 7 6 | H 1 3 2 | 1 5 8 7 4 0.0 |
| Site 2 | C O D 9 9 1 3 0 0 4 8 4 | H 1 3 2 | 1 0 4 0 0 |
| Site 3 | | | |

Comments:

Fire and response - fire water contaminated by Potassium Hydroxide. Fire initiation was unrelated to chemical storage.

OMB# 2050-0024; Expires 01/31/2017

BEFORE COPYING FORM, ATTACH SITE IDENTIFICATION LABEL OR ENTER:

SITE NAME: The Andersons Sergeant Bluff Plant

EPA ID Number: IAR000007310

**U.S. ENVIRONMENTAL PROTECTION AGENCY**

2015 Hazardous Waste Report

**GM FORM**

**WASTE GENERATION AND MANAGEMENT**

**Sec. 1** A. Waste description: Fire water containing cadmium from

B. EPA hazardous waste code(s): D006

C. State hazardous waste code(s):

D. Source code: G32

Management Method code for Source code G25:

E. Form code: W110

F. Quantity generated in 2015: 12889.0

UOM: G

Density: 1.00 ☐ lbs/gal ☑ sg

G. Waste minimization code:

**Sec. 2** Was any of this waste that was generated at this facility treated, disposed, and/or recycled on site?

☐ Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1)
☑ No (SKIP TO SEC. 3)

| ON-SITE PROCESS SYSTEM 1 | | ON-SITE PROCESS SYSTEM 2 | |
|---|---|---|---|
| On-site Management Method code | Quantity treated, disposed, or recycled on site in 2015 | On-site Management Method code | Quantity treated, disposed, or recycled on site in 2015 |
| H | | H | |

**Sec. 3** A. Was any of this waste shipped off site in 2015 for treatment, disposal, or recycling?

☑ Yes (CONTINUE TO ITEM B)
☐ No (FORM IS COMPLETE)

| | B. EPA ID No. of facility to which waste was shipped | C. Off-site Management Method code shipped to | D. Total quantity shipped in 2015 |
|---|---|---|---|
| Site 1 | OKD065438376 | H132 | 12814.00 |
| Site 2 | COD991300484 | H132 | 750.00 |
| Site 3 | | | |

Comments:

Fire and response - fire water contaminated by cadmium (Site1). Clean out of frac tank residual (Site 2)

OMB# 2050-0024; Expires 01/31/2017

BEFORE COPYING FORM, ATTACH SITE IDENTIFICATION LABEL OR ENTER:

SITE NAME: The Andersons Sergeant Bluff Plant

EPA ID Number I A R 0 0 0 0 0 7 3 1 0

**U.S. ENVIRONMENTAL PROTECTION AGENCY**

2015 Hazardous Waste Report

**GM FORM**

**WASTE GENERATION AND MANAGEMENT**

**Sec. 1** A. Waste description: Potassium Hydroxide contaminated material from fire water containers' clean up

B. EPA hazardous waste code(s): D 0 0 2

C. State hazardous waste code(s):

D. Source code: G 3 2

E. Form code: W 3 1 9

F. Quantity generated in 2015: 3 0 0 . 0

UOM: P

Density: ☐ lbs/gal ☐ sg

G. Waste minimization code:

Management Method code for Source code G25:

**Sec. 2** Was any of this waste that was generated at this facility treated, disposed, and/or recycled on site?

☐ Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1)
☒ No (SKIP TO SEC. 3)

| ON-SITE PROCESS SYSTEM 1 | | ON-SITE PROCESS SYSTEM 2 | |
|---|---|---|---|
| On-site Management Method code | Quantity treated, disposed, or recycled on site in 2015 | On-site Management Method code | Quantity treated, disposed, or recycled on site in 2015 |
| H | | H | |

**Sec. 3** A. Was any of this waste shipped off site in 2015 for treatment, disposal, or recycling?

☒ Yes (CONTINUE TO ITEM B)
☐ No (FORM IS COMPLETE)

| | B. EPA ID No. of facility to which waste was shipped | C. Off-site Management Method code shipped to | D. Total quantity shipped in 2015 |
|---|---|---|---|
| Site 1 | C O D 9 9 1 3 0 0 4 8 4 | H 1 3 2 | 3 0 0 . 0 |
| Site 2 | | | |
| Site 3 | | | |

Comments:

Following cleanout of frac tanks, PPE and consumables and sludge contaminated with potassium hydroxide.

**Appendix 1-3**

Facility: ANDERSONS - SERGEANT BLUFF Date: 08/03/2016 Arrival time: 0755

DRIVE-BY

1. Drive-by conducted from public right-of-way? ☒Yes ☐No

2. Determine the direction "North" with respect to the facility and provide a brief sketch of the layout and orientation (as can be viewed from the public right-of-way):

SEE SITE MAP

3. Obvious concerns visible from public right-of-way (photos)? ☐Yes ☒No

- Containers
- Tanks
- Processing Equipment
- Loading Areas
- Unloading Areas
- Security Devices
- Open Drums
- Stressed Vegetation
- Unusual Staining
- Unusual Odors
- Obvious Discharges
- Improper Disposal
- Safety Concerns
- Other Concerns

**Appendix 1-4** SITE ENTRY AND INBRIEFING

1. ☒Used main entrance ☒Entered during normal operating hours ☐Excessive delays (>15 minutes - denial of access?) - ☒No

2. Facility Representative(s): RICK JACKSON Title: MAINTENANCE SUPERVISOR
SHAWN TURNER Title: OPERATIONS MANAGER
ANDY MILLER Title: ELECTRICIAN

3. Does representative have intimate knowledge of all waste management practices? ☒Yes ☐No

How long in position? 15 YEARS SHAWN TURNER

4. Introduction:

- ☒Presented credentials
- ☒Explained responsibility to provide accurate information and provided copies of Section 1001 and 1002 U.S.C. to facility
- ☒Verified presence at correct facility (checked address/I.D. #)
- ☒Explained authority to conduct inspection (Section 3007 of RCRA)
- ☒Explained the purpose, scope, and order of the inspection
- ☒Completed Multimedia screening checklist
- ☒Explained documentation process - worksheets, checklists, photos, notes, statements, etc
- ☒Provided SBRFA
- ☐Obtained GPS reading
- ☒Explained facility's right to claim CBI

5. Was full access granted? ☒Yes ☒ By facility representative or Other (name): _____

☐No - Access denied. Name of person denying access: _____

Time of denial: _____

Reason for denial, or limitations placed on access:

**Appendix 1-5** FACILITY BACKGROUND WORKSHEET

1. Site History:

Date facility began operating: 1989 Number of employees: 18

Number of shifts/hour worked: 0600-1700 Number of days worked per week: 5 M-F

Size (sq. ft., how divided): 57,564 - OFFICE 4,350 - FILTER 2900 - RXI 16,894 - RAW MATERIALS STORAGE 7,677 - GRAN 5,858 - BOTTLING 14,000 - MICRO NUTRIENTS 4,855 WAREHOUSE 6,800 - SCALE HOUSE 230

Property owner and facility operator the same? ☒Yes ☐No

2. Major products or services provided: FERTILIZER MANUFACTURING

3. Major raw materials used: zinc, PHOSPHATE, POTASSIUM HYDROXIDE, ANHYDROUS AMMONIA

4. Major manufacturing or processing operations which generate waste streams: (provide brief description)

| Operation/Process | Waste Stream(s) |
|---|---|
| SEE WORKSTREAM WORKSHEETS | SEE WORKSTREAM WORKSHEETS |

5. Complete a Generator Waste Stream Worksheet and /or Off-Site Waste Stream Worksheet for the waste streams noted above and then finish this form.

6. Verified/compared above information with facility Notification Form: ☒Yes ☐No

TYPES OF REGULATED ACTIVITY: CESQG, SQH UNIVERSAL WASTE, USED OIL GENERATOR

DELETED D002, D018, AND D040 WASTE CODES FROM HAZARDOUS WASTE HANDLED

7. **GENERATOR STATUS:** (based on records review)

☐Non-generator
☒CE (0-100kg/mo or 1 kg/mo acute waste and accumulate <1000 kg or 1kg acute waste or 100 kg of acute spill residue)
☐SQG (100-1000kg/mo and accumulate<6000kg)
☐LQG (>1000kg/mo)

Is facility's status solidly within above category? ☒Yes ☐No
(If not carefully verify status and document)

8. **TSD STATUS**: ☐Treatment ☐Storage ☐Disposal

Note: Types of units, number of units, capacities, processes, etc:

CAN

9. Resolved questions from Pre-Inspection Worksheet? ☐Yes ☐No ☒No Questions

10. Resolved compliance officer's questions from Pre-Inspection Worksheet? ☐Yes ☐No ☒No Questions

11. Requested site map or diagram to identify all observations? ☒Yes ☐None Available

**Appendix 1-6** GENERATOR WASTE STREAM WORKSHEET

1. **WASTE STREAM:** SPENT LAMPS
   FACILITY DETERMINATION: ☒Hazardous ☒Non-hazardous ☐Not done ☐Inadequate
   WASTE CODES: D009 - MANAGES AS UNIVERSAL WASTE PER 40 CFR 273
   DETERMINATION METHOD: ☒Product knowledge ☑Process knowledge ☐Testing
   Documentation:
   GENERATING PROCESS: MAINTENANCE REPLACING SPENT LAMPS
   GENERATION RATE: ~ 4 PER YEAR
   ON-SITE MANAGEMENT: Satellites ☐N/A Visually inspected Storage ☒Visually inspected
   ACCUMULATED IN FIBERBOARD UNIVERSAL WASTE LAMPS CONTAINERS
   OFF-SITE MANAGEMENT/DISPOSITION: PICKED UP BY SAFETY-KLEEN FOR RECYCLING

2. **WASTE STREAM:** USED OIL
   FACILITY DETERMINATION: ☐Hazardous ☐Non-hazardous ☐Not done ☐Inadequate
   WASTE CODES: MANAGED AS USED OIL PER 40 CFR 279
   DETERMINATION METHOD: ☒Product knowledge ☑Process knowledge ☐Testing
   Documentation:
   GENERATING PROCESS: MAINTENANCE OF GENIE BOOM AND BOBCAT
   GENERATION RATE: ~ 2 GALLONS PER MONTH
   ON-SITE MANAGEMENT: Satellites ☐N/A Visually inspected Storage ☒Visually inspected
   STORED IN A 250 GALLON USED OIL TANK
   OFF-SITE MANAGEMENT/DISPOSITION: PICKED UP BY JEBRO OIL FOR RECYCLING

3. **WASTE STREAM:** AEROSOL CANS
   FACILITY DETERMINATION: ☒Hazardous ☐Non-hazardous ☐Not done ☐Inadequate
   WASTE CODES: D001
   DETERMINATION METHOD: ☑Product knowledge ☑Process knowledge ☐Testing
   Documentation:
   GENERATING PROCESS: FACILITY AND EQUIPMENT MAINTENANCE
   GENERATION RATE: ~ 5 CANS PER YEAR
   ON-SITE MANAGEMENT: Satellites ☒N/A Visually inspected Storage ☑Visually inspected
   ACCUMULATED IN A 30-GALLON ~~SATELLITE~~ HAZARDOUS WASTE CAN CONTAINER
   OFF-SITE MANAGEMENT/DISPOSITION: HAS NOT BEEN DISPOSED OF YET

**Appendix 1-6** GENERATOR WASTE STREAM WORKSHEET

4 CAN

1. **WASTE STREAM:** USED OIL FILTERS
FACILITY DETERMINATION: ☐Hazardous ☐Non-hazardous ☐Not done ☐Inadequate
WASTE CODES: MANAGED AS USED OIL PER 40 CFR 279
DETERMINATION METHOD: ☒Product knowledge ☒Process knowledge ☐Testing
Documentation:
GENERATING PROCESS: MAINTENANCE OF GENIE BOOM AND BOBCAT
GENERATION RATE: ~ 1 PER YEAR
ON-SITE MANAGEMENT: Satellites ☐Visually inspected NA Storage ☐Visually inspected NA
STORED IN A 55-GALLON USED OIL STORAGE CONTAINER - NONE IN STORAGE AT TIME OF CET
OFF-SITE MANAGEMENT/DISPOSITION: PICKED UP BY JEBRO OIL FOR RECYCLING

5 CAN

2. **WASTE STREAM:** GENERAL TRASH
FACILITY DETERMINATION: ☐Hazardous ☒Non-hazardous ☐Not done ☐Inadequate
WASTE CODES: NONE
DETERMINATION METHOD: ☒Product knowledge ☒Process knowledge ☐Testing
Documentation:
GENERATING PROCESS: OFFICE AND FACILITY GENERAL REFUSE
GENERATION RATE: UNKNOWN
ON-SITE MANAGEMENT: Satellites ☐Visually inspected NA Storage ☒Visually inspected
VARIOUS CONTAINERS THROUGHOUT THE FACILITY
OFF-SITE MANAGEMENT/DISPOSITION: PICKED UP BY GILL HAULING FOR DISPOSAL AT GILL LANDFILL IN JACKSON, NE.

3. **WASTE STREAM:**
FACILITY DETERMINATION: ☐Hazardous ☐Non-hazardous ☐Not done ☐Inadequate
WASTE CODES:
DETERMINATION METHOD: ☐Product knowledge ☐Process knowledge ☐Testing
Documentation:
CAN
GENERATING PROCESS:
GENERATION RATE:
ON-SITE MANAGEMENT: Satellites ☐Visually inspected Storage ☐Visually inspected
OFF-SITE MANAGEMENT/DISPOSITION:

**Appendix 1-6** GENERATOR WASTE STREAM WORKSHEET

1. **WASTE STREAM:** _____

FACILITY DETERMINATION: ☐Hazardous ☐Non-hazardous ☐Not done ☐Inadequate

WASTE CODES: _____

DETERMINATION METHOD: ☐Product knowledge ☐Process knowledge ☐Testing

Documentation: _____

GENERATING PROCESS: _____

GENERATION RATE: _____

ON-SITE MANAGEMENT: Satellites ☐Visually inspected Storage ☐Visually inspected

_____

_____

OFF-SITE MANAGEMENT/DISPOSITION: _____

_____

2. **WASTE STREAM:** _____

FACILITY DETERMINATION: ☐Hazardous ☐Non-hazardous ☐Not done ☐Inadequate

WASTE CODES: _____

DETERMINATION METHOD: ☐Product knowledge ☐Process knowledge ☐Testing

Documentation: _____

GENERATING PROCESS: _____

GENERATION RATE: _____

ON-SITE MANAGEMENT: Satellites ☐Visually inspected Storage ☐Visually inspected

_____

_____

OFF-SITE MANAGEMENT/DISPOSITION: _____

_____

3. **WASTE STREAM:** _____

FACILITY DETERMINATION: ☐Hazardous ☐Non-hazardous ☐Not done ☐Inadequate

WASTE CODES: _____

DETERMINATION METHOD: ☐Product knowledge ☐Process knowledge ☐Testing

Documentation: _____

GENERATING PROCESS: _____

GENERATION RATE: _____

ON-SITE MANAGEMENT: Satellites ☐Visually inspected Storage ☐Visually inspected

_____

_____

OFF-SITE MANAGEMENT/DISPOSITION: _____

_____

**Appendix 1-7** OFF-SITE WASTE STREAM WORKSHEET – TSD's ONLY

1. Name or type of waste stream(s):_____

2. Amount and frequency received (note amount per _?_):

_____ Gallons _____Pounds _____Tons per ☐ Day ☐ Month ☐ Year

☐ Other:_____

3. On-site management practices (check all that apply):

☐ Container Storage ☐ Tank Storage ☐ Treatment

☐ Disposal ☐ Other:_____

4. Off-site management activities: ☐ N/A

Shipped to:_____

Frequency of shipments:_____

Transporter:_____

Ultimate disposition of waste: ☐ Known ☐ Unknown CAN

_____

5. Number of years/months facility managed this waste: From:_____ To:_____

6. Facility considers this waste to be: ☐ Hazardous ☐ Non-Hazardous

7. Method of waste determination/identification: ☐ Not completed by facility
(check all that apply)

☐ By generator supplied information ☐ By testing

_____

_____

_____

_____

8. EPA waste codes:_____

9. Is waste stream consistent with generator Notification? ☐ YES ☐ NO

_____

_____

10. Notes/Observations:_____

_____

_____

_____

_____

_____

Appendix 1-8 RECORDS REVIEW WORKSHEET AND CHECKLIST

## A. MANIFESTS

| # | √/ x | REGULATORY REQUIREMENTS | MANIFEST #'S AND COMMENTS |
|---|---|---|---|
| 1. | ✓ | Facility uses manifest system-262.20(a)(1) | |
| 2. | ✓ | Manifests maintained for 3 years-262.40(a) | |
| 3. | ✓ | Generator EPA I.D. number-262.20(a) | |
| 4. | ✓ | Generator name, address, phone number-262.20(a) | |
| 5. | ✓ | Transporter(s) name & EPA I.D. number-262.20(a) | |
| 6. | ✓ | Designate facility name, address & EPA I.D. number-262.20(a) | |
| 7. | NA | Alternate facility designated (optional)-262.20(c) | |
| 8. | ✓ | Unique pre-printed manifest tracking number and number of pages-262.20(a) | |
| 9. | ✓ | DOT shipping name, hazard class, waste code, & RQ (if required-49 CFR 172)-262.20(a) | |
| 10. | ✓ | Containers: numbers, type, quantity, unit wt/vol.-262.20(a) | |
| 11. | ✓ | Proper certification including waste minimization-262.20(a) | |
| 12. | ✓ | Signed and dated-262.23(a) | |
| 13. | NA | Exception report submitted if necessary-262.42 | |
| 14. | NA | Waste reclaimed under contractual agreement (SQG only)-262.20(e)(1) | |
| 15. | NA | Generator maintains copy of contractual agreement for at least 3 years after termination or expiration of the agreement (SQG only)-262.20(e)(2) | |
| 16. | ✓ | LDR notification/certification sent with manifests on 1st shipment-268.7(a)(2) | |
| 17. | ✓ | LDR notification/certification includes: manifest number, correct EPA waste codes & treatment standards, and waste analysis data-268.7(a)(2) | |
| 18. | ✓ | LDR notification/certification/waste analysis data & other documents maintained for 3 years-268.7(a)(8) | |
| 19. | ✓ | Biennial Reports submitted per 262.41 (LQG only) | |

√ - in compliance X – not in compliance N/A – not applicable

20. Approximate number of manifests generated since last inspection, or over past 3 years: 17

21. Approximate number of manifests reviewed: 17

22. Copies of manifests made with regulatory violations? ☐ YES ☒ NO

## D. PERSONNEL TRAINING

(SQG – 262.34(d)(5)(iii), LQG's – 262.34(a)(4) referencing 265.16, I.S.-265.16 only)

| # | √ / x | REGULATORY REQUIREMENTS* | COMMENTS |
|---|---|---|---|
| 1. | | Program director trained in hazardous waste management procedures (LQG only)→265.16(a)(2) | |
| 2. | | Employees do not work unsupervised without completing training & are trained within 6 mo. of initial hiring (LQG only)→265.16(b) | |
| 3. | | Employees are trained annually (LQG only)→265.16(c) | |
| 4. | | Job title & name of person filling position specified (LQG only)→265.16(d)(1) | |
| 5. | | Written job description including: skills, education or qualification, and duties (LQG only)→265.16(d)(2) | |
| 6. | | Written description of type and amount of introductory & continuing training provided (LQG only)→265.16(d)(3) | |
| 7. | | Training covers: response to emergencies, implementation of contingency plan, use of alarms, waste feed cut-offs & other emergency equipment, as required (LQG only)→265.16(a)(3) | |
| 8. | | Documentation confirming training has been completed (LQG only)→265.16(d)(4) | |
| 9. | | Records maintained on-site for current employees & for 3 years for former employees→265.16(d) & (e) respectively | |
| 10. | | All employees are familiar with waste handling and emergency procedures relevant to their responsibilities (SQG only)→262.34(d)(5)(iii) | |

√ - in compliance X – not in compliance N/A – not applicable * - please note applicable permit requirements

11. Notes/Observations:_____

## E. WASTE ANALYSIS/WASTE DETERMINATION AND LAND DISPOSAL RESTRICTIONS

1. Location of waste analysis/waste determination records: @ MELODY RUSSO's OFFICE

2. Person responsible for waste analysis/waste determination: MELODY RUSSO

| # | √/ x | REGULATORY REQUIREMENTS* | COMMENTS |
|---|---|---|---|
| 3. | ✓ | Determines if waste is a hazardous waste-262.11 | |
| 4. | ✓ | Determines if waste is restricted from land disposal-262.11(d)→268.7(a)(1) | |
| 5. | ✓ | Determines waste does not meet applicable treatment standards (ATS)-268.7(a)(2) | |
| a. | NA ✓ CAN | One time written notice submitted to treatment or storage facility with initial shipment and a copy placed in file-268.7(a)(2) | |
| b. | NA | SQG disposes of waste under a contractual or tolling agreement-268.7(a)(10). (LDR Notice available for the initial shipment and copy of LDR Notice kept for 3 years after termination of agreement) | |
| 6. | | Waste covered by a National Capacity Variance(s)-268 Subpart C, Extension, or Petition-268.5 & 6. (Describe the variance, extension, or petition that applies) | |
| a. | | Provides a notice to the land disposal facility with the initial shipment, or a revised notice if changes occur, stating that the waste is exempt from the LDRs-268.7(a)(4). | |
| 7. | | Ships waste(s) covered by the LDRs off-site for treatment or disposal-268.7(a)(2). If no, go to 8. | |
| a. | | Provides a notice with initial shipment, or new notification, if changes occur-268.7(a)(2) | |
| b. | | Notice includes: EPA hazardous waste number(s), manifest number(s), waste analysis data, if available, and waste constituents, wastewater or non-wastewater classification, and subcategory, if applicable-268.7(a)(2)→268.7(a)(4) | |
| 8. | | Determined waste to be excluded from the definition of hazardous or solid waste, or exempt from Subtitle C regulations under 261.2 thru 261.6 subsequent to the point of generation-268.7(a)(7) | |
| a. | | Retains a one-time notice describing the generation, subsequent exclusion or exemption, and the disposition of the waste, in the facility's on-site files-268.7(a)(7). (If soil contaminated with waste, a special certification statement is included with the notice-268.7(a)(2)(i)) | |
| 9. | | Determines waste or soil contaminated with waste does meet the ATS or does not exceed prohibition levels and requires no further treatment-268.7(a)(3) | |
| a. | | One time written notice submitted to treatment or storage facility with initial shipment and a copy placed in file-268.7(a)(3)(i) | |
| 10. | | Additional special rules regarding waste that exhibits a characteristic-268.9 | |

## H. CLOSURE/POST-CLOSURE (SQG – N/A, LQG's – N/A)

| # | √ / x | REGULATORY REQUIREMENTS* | COMMENTS |
|---|---|---|---|
| 1. | | Facility has written closure plan & provides unapproved plan during inspections-265.112(a) | CAN |
| 2. | | Description of how and when the facility and each unit will be closed-265.112(b)(1), (2), and (6) | |
| 3. | | Estimate of maximum inventory of hazardous waste ever on-site-265.112(b)(3) | |
| 4. | | Detailed description of steps needed to remove & decontaminate all hazardous waste residues and equipment-265.112(b)(4) | |
| 5. | | Description of all other closure activities-265.112(b)(5) | |
| 6. | | Schedule for closure of each hazardous waste management unit-265.112(b)(6) | |
| 7. | | Schedule year of closure for facilities which use trust funds-265.112(b)(7) | |
| 8. | | Facility has written post-closure plan (disposal facilities only)-265.118(a) | |

√ - in compliance X – not in compliance N/A – not applicable * - please note applicable permit requirements

## I. FINANCIAL REQUIREMENTS (SQG – N/A, LQG's – N/A)

| # | √ / x | REGULATORY REQUIREMENTS* | COMMENTS |
|---|---|---|---|
| 1. | | Closure/post-closure cost estimates maintained at facility-265.142(d)/265.144(d) | |
| 2. | | Written cost estimate in current dollars for closure &/or post-closure-265.142(a) &/or 265.144(a) | |
| 3. | | Cost estimate based on maximum inventories and greatest expense for closure-265.142(a)(1) | |
| 4. | | Cost estimate based on hiring a third party to perform closure/post-closure-265.142(a)(2) / 265.144(a)(1) | |
| 5. | | Salvage/sale values not incorporated into cost estimates-265.142(a)(3) | |
| 6. | | Cost estimate adjusted for inflation 60 days prior to anniversary date-265.142(b) / 265.144(b) | |
| 7. | | Financial assurance instrument for closure/post-closure established-265.143 / 265.145 (note type of instrument used) | |
| 8. | | Liability insurance or pass financial test for sudden & non-sudden (land treatment/disposal only) occurrences-265.14(a) & (b) | |

√ - in compliance X – not in compliance N/A – not applicable * - please note applicable permit requirements

## J. USED OIL – RCRA INSPECTION CHECKLIST

1. What Used Oil activities does the facility engage in? MACHINERY AND INDUSTRIAL TRUCK MAINTENANCE

a. Type of used oil generated? LUBRICATING
b. Amount of used oil generated? ~ 2 GALLONS PER MONTH

**40 CFR 279.12 Prohibition Questions**

1. Is used oil being managed only in a surface impoundment or waste pile subject to regulation under 40 CFR Parts 264 or 265? ☐ Yes ☐ No ☒ Not Applicable (NA)

2. Is used oil being used as a dust suppressant? ☐ Yes ☒ No

3. Is off-specification oil fuel burned for energy recovery in only industrial furnaces, industrial boilers, utility boilers, used oil-fired space heaters, or hazardous waste incinerators identified in 40 CFR Part 279.12 (c)(1-3)? ☐ Yes ☒ No

Subpart C – Standards for Used Oil Generators

(Check here ☐ if this section is NA)

◆ *Instructions:* *Fill out this section if the facility generates used oil or if facility activities first caused the used oil to become subject to regulation (see definition and applicability of used oil generator in 40 CFR 279.20). Used oil generators are subject to all applicable Spill Prevention, Control and Countermeasures (SPCC) requirements (40 CFR Part 112) and underground storage tank standards (40 CFR Part 280) in addition to the requirements of Subpart C.*

| *Regulation and Standard* | | *Violations* |
|---|---|---|
| **279.21 Hazardous Waste Mixing** | | |
| 1. Is the generator mixing hazardous waste with used oil? | • Yes • (No) • NA | |
| If yes, is the generator of a used oil containing greater than 1,000 parts per million (ppm) total halogens managing the used oil as a hazardous waste unless the used oil presumption is rebutted? | • Yes • No • (NA) | |
| 2. Are analytical data available? | • Yes • No • (NA) | |
| **279.22 Used Oil Storage** | | |
| 1. Does the generator only store used oil in tanks, containers, or units subject to regulation under 40 CFR Parts 264 or 265? | • (Yes) • No • NA | |
| 2. Are containers and aboveground tanks used by a generator to store used oil in good condition, with no visible leaks? | • (Yes) • No • NA | |
| 3. Are containers, aboveground tanks, and fill pipes used for underground tanks labeled or marked "Used Oil"? | • (Yes) • No • NA | |
| 4. Upon detection of a release of used oil, has the generator<br>a. Stopped the release?<br>b. Contained the release?<br>c. Cleaned up and managed the used oil and other materials?<br>d. Repaired or replaced the containers or tanks prior to returning them to service, if necessary? | <br>• Yes • No • (NA)<br>• Yes • No • (NA)<br>• Yes • No • (NA)<br>• Yes • No • (NA) | |
| **279.23 Used Oil Storage** | | |
| 1. Is the generator burning used oil in used oil fired space heaters only when<br>a. The heater burns only used oil that the owner or operator generates or used oil received from household do-it-yourself generators?<br>b. The heater is designed to have a maximum capacity of not more than 0.5 million British Thermal Units per hour?<br>c. The combustion gasses from the heater are vented to ambient air? | <br><br>• Yes • No • (NA)<br>• Yes • No • (NA)<br>• Yes • No • (NA) | |

| *Regulation and Standard* | | *Violations* |
|---|---|---|
| **279.24 Off-Site Shipment** | | |
| 1. Has the generator ensured that the used oil is hauled only by a transporter that has obtained a U.S. Environmental Protection Agency (EPA) identification (ID) number? | ☒ Yes ☐ No ☐ NA | |
| 2. Does the generator have a tolling arrangement with a transporter without an EPA ID number? | ☐ Yes ☒ No ☐ NA | |
| ***If yes, answer the three following questions. If no, move to question 6.*** | | |
| 3. Is the used oil reclaimed and returned by the processor or re-refiner to the generator for use as a lubricant, cutting oil, or coolant? | ☐ Yes ☐ No ☒ NA | |
| 4. Does the tolling contract indicate the type of used oil and the frequency of shipment? | ☐ Yes ☐ No ☒ NA | |
| 5. Is the vehicle used to transport the used oil to the processing or re-refining facility and to deliver recycled used oil back to the generator owned and operated by the used oil processor or re-refiner? | ☐ Yes ☐ No ☒ NA | |
| 6. Does the generator transport used oil generated at the generator's site or used oil collected from household do-it-yourselfers to a used oil collection center or to aggregation points owned by the generator? | ☐ Yes ☒ No ☐ NA | |

| *Regulation and Standard* | | *Violations* |
|---|---|---|
| 7. Does the generator transport used oil in a vehicle owned by the generator or an employee of the generator? | ☐ Yes ☐ No ☒ NA | NO SELF TRANSPORT |
| 8. Does the generator transport no more than 55 gallons of used oil at any time? | ☐ Yes ☐ No ☒ NA | |
| 9. Does the generator transport the used oil to a used oil collection center that is registered, licensed, permitted, or recognized by a state/county/municipal government to manage used oil? | ☐ Yes ☐ No ☒ NA | |

**For further Used Oil questions refer to Appendix 2-4:**

Subpart D – Standards for Used Oil Collection Centers and Aggregation Points
Subpart E – Standards for Used Oil Transporters and Transfer Centers
Subpart F – Standards for Used Oil Processors and Re-Refiners
Subpart G – Standards for Used Oil Burners Who Burn Off-Specification Used Oil for Energy Recovery
Subpart H – Standards for Used Oil Fuel Marketers

## K. Universal Waste (UW)

1. Universal Waste Generated

| Waste: | Fluorescent & HID Lamps | Batteries | Hg-containing equip. and/or thermostats | Pesticides |
|---|---|---|---|---|
| Qty. Generate/year: | 4 | CAN | CAN | CAN |
| Qty. Presently in storage: | 11 | | | |
| Accumulation Time: | 11 MONTHS | | | |
| Present Disposal Method: | RECYCLE | | | |

2. Person(s) responsible for universal waste management: MELODY RUSSO

3. Does the universal waste handler accumulate (collectively) 5,000 kilograms or more at any time (40 CFR 273.9)? **If YES**, a large quantity handler (LQH), go on and also refer to checklist in Appendix 2-2. **If NO**, a small quantity handler (SQH), go on.

Assessing Requirements Common to *Universal Waste SQH & LQH* (40 CFR 273 Subpart B & C, respectively):

| # | √/ x | REGULATORY REQUIREMENTS* | COMMENTS |
|---|---|---|---|
| 1. | ✓ | Disposal of UW is not occurring-273.11(a)/273.31(a) | |
| 2. | ✓ | Diluting or treating universal waste is not occurring, except for responding to releases per 273.17 or by managing specific wastes per 273.13 (waste management)-273.11(b)/273.31(b) | |
| 3. | NA | Has the LQG notified of UW management?-273.32 (a)(1) (not required for SQH) | |
| 4. | ✓ | Has UW been shipped to another UW handler, a designated facility, or a foreign destination?-273.18(a)/273.38(a) If not, see Appendix 2-2 for off-site shipments | |
| a. | NA | Does LQH have documentation tracking shipments?-273.39 (not required for SQH-273.19) | |
| 5. | ✓ | UW package, container, tank, vessel or transport vehicle is marked or labeled-273.14/273.34-as follows: | |
| a. | NA | "Universal Waste-Battery(ies)," or "Waste Battery(ies)," or "Used Battery(ies)"-273.14(a)/273.34(a) | |
| b. | NA | For recalled universal waste pesticides; "Universal Waste-Pesticide(s)" or "Waste-Pesticide(s)," and the label that was on or accompanied the product as sold or distributed, or if the label is not available or not feasible to use, the appropriate DOT label as identified in 49 CFR 172-273.14(b)/273.34(b) | |
| c. | NA | For unused pesticide products as described in 40 CFR 273.3(a)(2): (1) the label that was on the product when purchased, if still legible; (2) if using that label is not feasible, the appropriate label required under DOT regulation 49 CFR Part 172; (3) if using either of the previously described labels is not feasible, another label prescribed or designated by the waste pesticide collection program administered or recognized by a state; **and** (4) the words "Universal Waste-Pesticide(s)" or "Waste-Pesticide(s)"-273.14(c)/273.34(c) | |
| d. | NA | "Universal Waste-Mercury Containing Equipment," or "Waste Mercury-Containing Equipment," or "Used Mercury-Containing Equipment"-273.14(d)(1)/273.34(d)(1) Thermostats may be labeled: "Universal Waste-Mercury Thermostat(s)," or "Waste Mercury Thermostat(s)," or "Used Mercury Thermostat(s)"-273.14(d)(2)/273.34(d)(2) | |
| e. | ✓ | "Universal Waste-Lamp(s)," or "Waste Lamp(s)," or "Used Lamp(s)"-273.14(e)/273.34(e) | |

| | | | |
|---|---|---|---|
| 6. | ✓ | Accumulation Time Limits – 273.15/273.35<br><br>A UW handler may accumulate universal waste **no longer than a year** from the date of generation or receipt from another handler, unless the requirements of paragraph 273.15(b) are met, as follows: | |
| a. | NA | Storage over one year is solely for the purpose of accumulation of such quantities as necessary to facilitate proper recovery, treatment, or disposal and the handler provides proof of this – 273.15(b)/273.35(b)<br>For further requirements of UW retention time documentation, see Appendix 2-2. | |
| 7. | NA | Employee Training – 273.16/273.36<br>The UW handler must inform all employees who handle or have responsibility for managing universal waste of the proper handling and emergency procedures appropriate to the type(s) of universal waste handled at the facility. | |
| 8. | NA | Response to Releases – 273.17/273.37 – Did you observe any releases or did any releases occur? – if yes, see Appendix 2-2. | |
| 9. | NA | Handlers of universal waste that self-transport universal waste off-site become a universal waste transporter for those self-transportation activities and must comply with the transporter requirements of subpart D of this part while transporting the universal waste – 273.18(b)/273.38(b) – and see Appendix 2-2. | |

## L. RCRA AIR EMISSIONS

1. **Is facility a LQG__Interim Status TSD__or Permitted TSD__ <u>If NOT, do not continue with the RCRA Air Emissions checklists.</u>**

2. Location of records:_____

3. Person responsible for records:_____

***<u>Assessing RCRA Air Emission Requirements</u>*** (Subparts AA, DD and CC) commonly applicable:

| # | √ / x | REGULATORY REQUIREMENT* | MANIFEST #'S AND COMMENTS |
|---|---|---|---|
| 1. | | **<u>Subpart AA</u>** – 264/5.1030<br>Does the facility have any hazardous waste management unit using the following processes: distillation, fractionation, thin-film evaporation, solvent extraction, air stripping and steam stripping?<br>**If NO, then proceed to the Subpart BB checklist.**<br>If YES, refer to specific Subpart AA questions in Appendix 2-3 | CAN |
| 2. | | **<u>Subpart BB</u>** regulated equipment – 264/5.1050<br>Does the facility have any valves, flanges, or pumps that contain or contact hazardous wastes with >10% organics? | |
| a. | | Does the facility have any compressors, pressure relief devices, sampling connection systems, flanged pipe, open-ended valve, or line that contain or contact hazardous wastes with >10% organics? | |
| b. | | Is the facility claiming the <300 hours exemption? | |
| 3. | | If any of the answers to questions 2(a), (b), or (c) above is Yes, does the facility have a list of each piece of equipment that is subject to Subpart BB? (facility should have a list in their operating record, ask for copy)-264/5/1064(g) | |
| a. | | If any of the answers to questions 2(a) or 2(b) is No, does the facility have information or documentation to support its determination (obtain a copy of this documentation for EPA). | |
| 4. | | Has this equipment been marked as required by the Subpart BB regulations?-264.1050(d)/265.1050(c) | |
| 5. | | Has the facility implemented a LDAR program?-264/5.1064 | |
| 6. | | See Appendix 2-3 for more specific Subpart BB questions. | |
| 7. | | **<u>Subpart CC</u>** – 264/5.1080<br>Are there any units at the facility subject to the CC Rule? | |
| a. | | If the answer to 7(a) is No, what is the reason? Refer to 40 CFR 265.1080(b) (264.1080(b)) exceptions or 265.1083(c) (264.1082(c)) exemptions, or the general exclusions in 265.1(g) (264.1(g)). | |
| b. | | If the answer is Yes, refer to Appendix 2-3 for more specific Subpart CC questions. | |

**Tank #2** – Name & location of tank:_____

Person responsible for tank area:_____

Age of tank when it first stored/treated/held a hazardous waste:_____

How was age verified?_____

Tank design capacity:_____ Type of waste in tank:_____

Volume currently in the tank:_____ How was volume verified?_____

Length of time in tank: ☐ <90 day ☐ <180 day ☐ <270 day ☐ I.S. ☐ Permit

Photos taken? ☐ YES ☐ NO Photo numbers:_____

Area noted on map or diagram: ☐ YES ☐ NO

CAM

**Tank #3** – Name & location of tank:_____

Person responsible for tank area:_____

Age of tank when it first stored/treated/held a hazardous waste:_____

How was age verified?_____

Tank design capacity:_____ Type of waste in tank:_____

Volume currently in the tank:_____ How was volume verified?_____

Length of time in tank: ☐ <90 day ☐ <180 day ☐ <270 day ☐ I.S. ☐ Permit

Photos taken? ☐ YES ☐ NO Photo numbers:_____

Area noted on map or diagram: ☐ YES ☐ NO

**Tank #4** – Name & location of tank:_____

Person responsible for tank area:_____

Age of tank when it first stored/treated/held a hazardous waste:_____

How was age verified?_____

Tank design capacity:_____ Type of waste in tank:_____

Volume currently in the tank:_____ How was volume verified?_____

Length of time in tank: ☐ <90 day ☐ <180 day ☐ <270 day ☐ I.S. ☐ Permit

Photos taken? ☐ YES ☑ NO Photo numbers:_____

Area noted on map or diagram: ☐ YES ☐ NO

## Appendix 1-10

EXIT BRIEFING

1. Reviewed all data collected and documented all concerns or violations? ☒ Yes ☐ No
   - Location of the violation, type and amount of waste involved, time frame, frequency, specific dates & when first started occurring.
   - Illegal units-unit location (diagram/picture), dimensions, conditions, construction material, gradient of the base (for spills), other information.
   - Illegal disposal-how, when (each occurrence), where sent or disposed of, how shipped, who shipped, when shipped/disposed of, quantity.

☒ Identified/verified violations from previous inspection were corrected (if applicable)
☒ Addressed all unresolved inspection related issues
☒ Summarized findings and observations for the facility representatives
NOPF
~~NOV~~ issued? ☐ Yes ☒ No ☐ Violations clearly identified and explained, including: circumstances, location, and applicable regulations
CAN

☒ Explained the importance of a timely (14 day) and adequate response
☒ Explained that findings and observations are based on your current knowledge of RCRA and that the final findings may differ
☒ Explained that compliance officer will make final compliance decisions and that all compliance questions should be directed toward them
☒ Explained that recommendations provided are for informational purposes only and DO NOT require specific actions by the facility
☒ Provided facility with CBI form
☒ Prepared Document Receipt form

3. Specific information requested from facility? ☐ Yes ☒ No

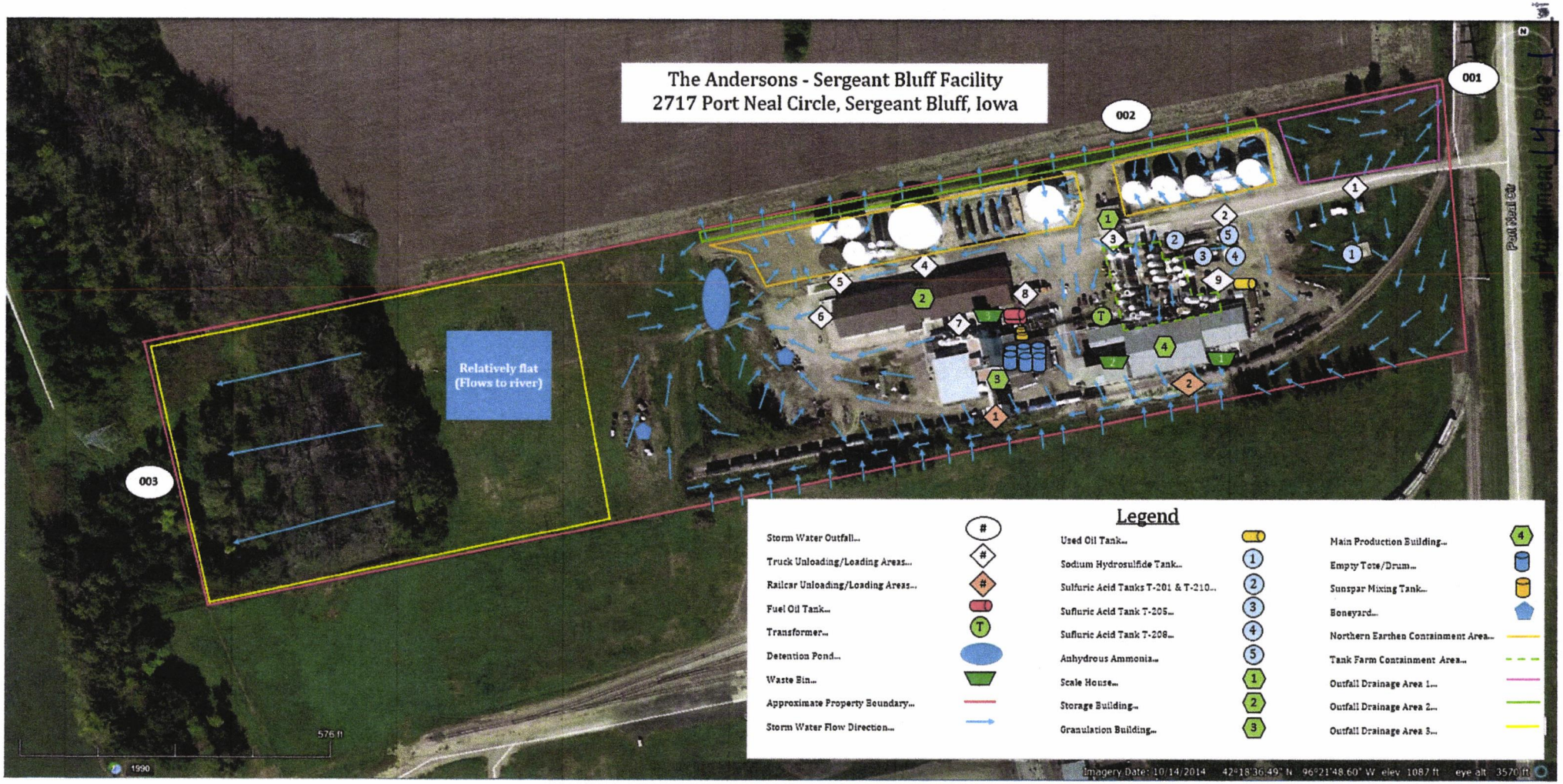
4. Facility appears to have awareness of RCRA regulations? ☒ Yes ☐ No

5. Facility has its own environmental staff? ☐ Yes ☒ No

6. Facility has copy of applicable regulations? ☒ Yes ☐ No

7. Attitude and demeanor of facility representative(s); ☒ OK ☐ Not OK

8. Notes/Observations:


The Andersons - Sergeant Bluff Facility
2717 Port Neal Circle, Sergeant Bluff, Iowa
001
002
003
Relatively flat
(Flows to river)
Legend
Storm Water Outfall...
Truck Unloading/Loading Areas...
Railcar Unloading/Loading Areas...
Fuel Oil Tank...
Transformer...
Detention Pond...
Waste Bin...
Approximate Property Boundary...
Storm Water Flow Direction...
Used Oil Tank...
Sodium Hydrosulfide Tank...
Sulfuric Acid Tanks T-201 & T-210...
Sulfuric Acid Tank T-205...
Sulfuric Acid Tank T-208...
Anhydrous Ammonia...
Scale House...
Storage Building...
Granulation Building...
Main Production Building...
Empty Tote/Drum...
Sunspar Mixing Tank...
Boneyard...
Northern Earthen Containment Area...
Tank Farm Containment Area...
Outfall Drainage Area 1...
Outfall Drainage Area 2...
Outfall Drainage Area 3...
576 ft
1990
Imagery Date: 10/14/2014 42°18'36.49" N 96°21'48.60" W elev 1087 ft eye alt 3570 ft

# Safety-Kleen Systems, Inc.

2600 N Central Expy, Suite 200
Richardson, TX 75080
CORPORATE: 800-669-5740
24 HR EMERGENCY: 800-468-1760 (Safety-Kleen)
4023336321

CUSTOMER# TH33675 The Anderson's Inc
216 Cuningham Drive
Sioux City IA 51106-0000
PHONE 605-217-2011

REFERENCE NBR. 70420032
SRVC WEEK: 2016-22
SRVC DATE: 05/24/16 13:28

BILL TO CUSTOMER# KA15826

BILL TO ADDRESS:
The Anderson's Inc
200 S Derby Ln
North Sioux City SD 57049-3031
PHONE 712-279-1919

PURCHASE ORDER#

TAX EXEMPT#

## PRODUCT/SERVICES

| SERVICE/ PRODUCT | | QTY | UNIT PRICE | TAX | TOTAL CHARGE |
|---|---|---|---|---|---|
| 3206 | BOX FLOR BULBS 4' | 1.000 | 0.0000 | 0.00 | 0.00 |
| | SERVICE TERM 12 WEEK | | | | |
| | CAUSE CODE VoidHeaderAndLine -SERVICE NOT NEEDED | | | | |
| 83206 | CFL1 STRAIT FLUORESCENT - | 1.000 | 0.0000 | 0.00 | 0.00 |
| | SERVICE TERM 12 WEEK | | | | |
| 3207 | BOX FLOR BULBS 8' | 1.000 | 0.0000 | 0.00 | 0.00 |
| | SERVICE TERM 12 WEEK | | | | |
| | CAUSE CODE VoidHeaderAndLine SERVICE NOT NEEDED | | | | |
| 83207 | CFL1 STRAIT FLUORESCENT - | 1.000 | 0.0000 | 0.00 | 0.00 |
| | SERVICE TERM 12 WEEK | | | | |
| 4/000 | BOX, 4 FT STANDARD LAMP | 5.000 | 60.0000 | 0.00 | 300.00 |
| | SERVICE TERM 12 WEEK | | | | |
| 4/004 | BOX, 8 FT STANDARD LAMP - | 5.000 | 70.0000 | 0.00 | 350.00 |
| | SERVICE TERM 12 WEEK | | | | |
| 4/010 | BOX, 2FT JMBO U-BEND HID | 1.000 | 130.0000 | 0.00 | 130.00 |
| 100001 | FEE, FUEL SURCHARGE | 1.000 | 9.2200 | 0.00 | 9.22 |
| | TOTAL SERVICE/PRODUCTS | | 269.2200 | 0.00 | 789.22 |
| | | | TOTAL CHARGE | | 789.22 |
| | | | CREDITS | | 0.00 |
| | | | TOTAL DUE | | 789.22 |

UNPAID BALANCE THIS RECEIPT 789.22

GENERATOR STATUS
0-220 lbs/month

Customer certifies that (i) the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation (ii) no material change has occurred either in the characteristics of the waste/material or in the process generating the waste/material, and (iii) the above referenced Generator Status is correct. Customer agrees to pay the above charges and to be bound by the terms and conditions (1) set forth in (a) the General Terms and Conditions provided separately to Customer or (b) any SK agreement signed by Customer and SK, and (2) incorporated herein by reference. Unless otherwise indicated in the payment received section, SK is authorized to charge Customer's account for this transaction. If Customer fails to make payment when due, an amount equal to the lesser of (i) 1.5% per month (18% per annum) or (ii) the maximum amount allowed by law, will be added to all unpaid amounts outstanding. Customer certifies that the individual signing this Service Acknowledgement is duly authorized to sign and bind Customer. Customer acknowledges that it is responsible for maintaining its Generator Status and obtaining an EPA ID number if required by applicable law. The following provision is applicable to Safety-Kleen's parts cleaner and paint gun cleaner services: Customer agrees that it will not introduce any substance into the solvent or aqueous cleaning solution, including without limitation any hazardous waste or hazardous waste constituent, except to the extent such introduction is incidental to the normal use of the machine. Customer further agrees that it will not clean parts/paint guns that have been contaminated with or otherwise introduce polychlorinated biphenyls (PCB's), herbicides, pesticides, dioxins or listed hazardous waste into the solvent or aqueous cleaning solution. Safety-Kleen has the capacity and is permitted to accept, store, and/or reclaim the spent parts washer solvent, paint thinners, solvents and paints generated by customer; or dry cleaning filter cartridges, powder, and still residues containing perchloroethylene, petroleum naphtha, or trifluorotrichloroethane dry cleaning solvents. Customer agrees that it is responsible for properly classifying its waste streams as Used Oil or Nonhazardous Waste in accordance with the provision of 40 CFR 262.11 and applicable state laws. Customer agrees that it will not introduce any non-conforming substance into the SK Property, including, without limitation, any hazardous waste or hazardous waste constituent,(i.e., polychlorinated biphenyls ("PCBs"), herbicides, pesticides, dioxins, or listed hazardous wastes) except to the extent such introduction is incidental to the normal use of the SK Property. In the event of the introduction of such non-conforming hazardous waste, Customer agrees that it will be responsible for all costs and remediation expenses related to or arising from the proper management and disposal of the non-conforming waste, including the cost of equipment decontamination and subsequent disposal. Final invoicing will be based on the actual services provided, which may include additional charges for off specification waste and surcharges. Final invoice amount may be more than the amount listed on the printed receipt. If any legal action is commenced because of an alleged dispute, breach, default or misrepresentation, the Customer also agrees that the prevailing party will be entitled to recover reasonable attorney's fees and costs associated with the non-conforming contamination event. Safety Kleen's failure to screen Customer's material or take a retain sample, in no way constitutes a waiver of Customer's obligation to properly classify its materials. Safety-Kleen relies on Customer's representations and Customer is responsible for informing Safety-Kleen of any process changes that may alter the characteristics of the materials provided. IN THE EVENT OF AN EMERGENCY CALL **24-HR NUMBER** 1-800-468-1760 (Safety-Kleen)

Signature

CUSTOMER / GENERATOR: mike albright



## SHIPPING DOCUMENT

REFERENCE NBR. 70420032

CUSTOMER#/GENERATOR: TH33675 The Anderson's Inc
216 Cuningham Drive
Sioux City IA 51106-0000
PHONE 605-217-2011

SRVC DATE: 05/24/16

GENERATOR USEPA ID: CESQG GENERATOR STATE
MANIFEST#: FORM CD: NR SHIP# 219311511
TRANSPORTER 1 TXR000081205
TRANSPORTER 2

US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID)

UNIVERSAL WASTE LAMPS
NOT USDOT REGULATED
FEDERAL WASTE CODES NONE
STATE WASTE CODES
TOTAL CONT 6 TYPE CF WT/VOL P SKDOT 11130

| | | | |
|---|---|---|---|
| CN1#: 1605238945567 | SZ: 4FT/1.2M CART FLOR BULB | QTY: 10 | PROF# 150228 |
| CN1#: 1605238945568 | SZ: 4FT/1.2M CART FLOR BULB | QTY: 10 | PROF# 150228 |
| CN1#: 1605238945569 | SZ: 4FT/1.2M CART FLOR BULB | QTY: 10 | PROF# 150228 |
| CN1#: 1605238945570 | SZ: 8FT/2.4M CART FLOR BULB | QTY: 20 | PROF# 150228 |
| CN1#: 1605238945571 | SZ: 8FT/2.4M CART FLOR BULB | QTY: 20 | PROF# 150228 |
| CN1#: 1605238945572 | SZ: 8FT/2.4M CART FLOR BULB | QTY: 20 | PROF# 150228 |

DESIGNATED FACILITY NAME/ADDRESS:
CLEAN HARBORS EL DORADO
309 AMERICAN CIRCLE
EL DORADO AR 71730
TSD PHONE: 870-863-7173

FACILITY USEPA ID NO ARD069748192
FACILITY STATE ID NO

GENERATOR STATUS
0-220 lbs/month

Customer certifies that (i) the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation (ii) no material change has occurred either in the characteristics of the waste/material or in the process generating the waste/material, and (iii) the above referenced Generator Status is correct. Customer agrees to pay the above charges and to be bound by the terms and conditions (1) set forth in (a) the General Terms and Conditions provided separately to Customer or (b) any SK agreement signed by Customer and SK, and (2) incorporated herein by reference. Unless otherwise indicated in the payment received section, SK is authorized to charge Customer's account for this transaction. If Customer fails to make payment when due, an amount equal to the lesser of (i) 1.5% per month (18% per annum) or (ii) the maximum amount allowed by law, will be added to all unpaid amounts outstanding. Customer certifies that the individual signing this Service Acknowledgement is duly authorized to sign and bind Customer. Customer acknowledges that it is responsible for maintaining its Generator Status and obtaining an EPA ID number if required by applicable law. The following provision is applicable to Safety-Kleen's parts cleaner and paint gun cleaner services: Customer agrees that it will not introduce any substance into the solvent or aqueous cleaning solution, including without limitation any hazardous waste or hazardous waste constituent, except to the extent such introduction is incidental to the normal use of the machine. Customer further agrees that it will not clean parts/paint guns that have been contaminated with or otherwise introduce polychlorinated biphenyls (PCB's), herbicides, pesticides, dioxins or listed hazardous waste into the solvent or aqueous cleaning solution. Safety Kleen has the capacity and is permitted to accept, store, and/or reclaim the spent parts washer solvent, paint thinners, solvents and paints generated by customer; or dry cleaning filter cartridges, powder, and still residues containing perchloroethylene, petroleum naphtha, or trifluorotrichloroethane dry cleaning solvents. Customer agrees that it is responsible for properly classifying its waste streams as Used Oil or Nonhazardous Waste in accordance with the provision of 40 CFR 262.11 and applicable state laws. Customer agrees that it will not introduce any non-conforming substance into the SK Property, including, without limitation, any hazardous waste or hazardous waste constituent,(i.e., polychlorinated biphenyls ("PCBs"), herbicides, pesticides, dioxins, or listed hazardous wastes) except to the extent such introduction is incidental to the normal use of the SK Property. In the event of the introduction of such non-conforming hazardous waste, Customer agrees that it will be responsible for all costs and remediation expenses related to or arising from the proper management and disposal of the non-conforming waste, including the cost of equipment decontamination and subsequent disposal. Final invoicing will be based on the actual services provided, which may include additional charges for off specification waste and surcharges. Final invoice amount may be more than the amount listed on the printed receipt. If any legal action is commenced because of an alleged dispute, breach, default or misrepresentation, the Customer also agrees that the prevailing party will be entitled to recover reasonable attorney's fees and costs associated with the non-conforming contamination event. Safety-Kleen's failure to screen Customer's material or take a retain sample, in no way constitutes a waiver of Customer's obligation to properly classify its materials. Safety-Kleen relies on Customer's representations and Customer is responsible for informing Safety-Kleen of any process changes that may alter the characteristics of the materials provided. IN THE EVENT OF AN EMERGENCY CALL **24-HR NUMBER** 1-800-468-1760 (Safety-Kleen)

Signature

CUSTOMER / GENERATOR: mike albright

LAST PAGE

Attachment 15 Page 1 of 1

DEPARTMENT OF NATURAL RESOURCES
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
NOTICE OF GENERAL PERMIT COVERAGE UNDER
GENERAL PERMIT NO. 1

## STORM WATER DISCHARGE ASSOCIATED WITH INDUSTRIAL ACTIVITY

This notice of general permit coverage for a storm water discharge associated with industrial activity is issued pursuant to the authority of section 402 (b) of the Clean Water Act (U.S.C. 1342(b)), Iowa Code 455B.174, and subrule 567--64.4(2), Iowa Administrative Code. A Notice of Intent has been filed with the Iowa Department of Natural Resources that this storm water discharge complies with the terms and conditions of NPDES General Permit No. 1. Authorization is hereby issued to discharge storm water associated with industrial activity as defined in Part VIII of the Iowa Department of Natural Resources NPDES General Permit No. 1 in accordance with the terms and conditions set forth in the permit.

**Owner:** **THE ANDERSONS**
**200 SOUTH DERBY LANE**
**NORTH SIOUX CITY SD 57049**
**(605)217-2029**

**Permit Coverage Issued To:**

**THE ANDERSONS - SERGEANT BLUFF**
**2717 PORT NEAL CIRCLE**
**in SERGEANT BLUFF, WOODBURY COUNTY**
**located at**

| 1/4 Section | Section | Township | Range |
|---|---|---|---|
| NE | 31 | 87N | 47W |

**Coverage Provided Through:** **10/1/2016**

**Standard Industrial Classification Code:** **2875**

**NPDES Permit Discharge Authorization Number:** **2519 - 2368**

**Discharge Authorization Date:** **2/1/1994**

**Tier II Emergency and Hazardous Chemical Inventory - Due March 1st 2016**

Reporting Period from January 1, 2015 to December 31, 2015

Return Form to: Iowa Department of Natural Resources
Environmental Services Division
Field Office 5
7900 Hickman Road Suite 200
Windsor Heights, IA 50324-4404

[X] Annual [ ] Revision

## Facility Identification

Max # of occupants 23

ID: 1588 [X] Manned [ ] Unmanned

Name: The Andersons - Sergeant Bluff

Street: 2717 Port Neal Circle

County: WOODBURY City: SERGEANT BLUFF

Fire Department: Sergeant Bluff Fire Department

State: IA Zip: 51054

Phone: 712-943-3983 Fax: 712-943-3982

Email: melody_russo@andersonsinc.com

## Owner/Operator Details

Name: The Andersons Inc.

Phone: 419-893-5050

Street Address: 480 W. Dussel Drive

City: Maumee State: OH Zip: 43537

Country: US

Email: tony_sloma@andersonsinc.com

## Mailing Address if different from Facility ID Address

Company: The Andersons

Attn: Melody Russo

Street Address 1: 200 S. Derby Lane

Street Address 2:

City: N. Sioux City State: SD

Zip: 57049 Phone: 800-831-4815

Country: US

RMP Fac ID 100000158474 [ ] N/A Dun & Brad No: 071035708

NAICS: 325311 TRIFID: 51054NTRFL2717P [ ] N/A

## Tier 2 Contact

Name: Anthony Sloma Title Regulatory Compliance Mgr

Email: tony_sloma@andersonsinc.com

Phone: 419-897-3676 24 hour phone: 800-757-8951

### Emergency Contacts

Name: Shawn Turner Title: Plant Manager

Email: shawn_turner@andersonsinc.com

Phone: 712-943-3983 24 hour phone: 800-757-8951

Name: Terry Robinson Title: Chemist

Email: terry_robinson@andersonsinc.com

Phone: 712-279-1977 24 hour phone: 800-757-8951

**Subject to Emergency Planning under Section 302 of EPCRA (40 CFR part 355)?** [X] Yes [ ] No

**Subject to Chemical Accident Prevention under Section 112(r) of CAA (40 CFR part 68, Risk Management Program)?** [X] Yes [ ] No

## Optional Attachments

[ ] Site Plan [ ] Other Safeguard Measures

[ ] Site Coordinate Abbreviations [ ] Emergency Response Plan

**Mixture Components are listed in the Appendix**

Certification: I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages 1 through 11, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

| Anthony Sloma, Regulatory Compliance Manager | 02-25-2016 | Anthony Sloma |
|---|---|---|
| Name and official title of owner/operator or authorized representative | Date | Signature |

Attachment 7 Page 1 of 11

| Chemical Description | Physical & Health Hazards | Inventory | | Storage Codes & Location (Check ☐ if Confidential) | | | |
|---|---|---|---|---|---|---|---|
| | | | | Container Type | Pressure | Temperature | Storage Location |
| ☐ Identical to previous year: | | | | | | | |
| CAS Number: | ☐ Fire | 39,000 | Max Daily Amt (lbs) | Plastic Bottles or Jugs | Ambient Pressure | Ambient temperature | ☐ packaging plant |
| Chemical Name: 10% Boron Solution | ☐ Pressure | 07 | Max Daily Amt Code | Tote Bin | Ambient Pressure | Ambient temperature | ☐ packaging plant |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 33,000 | Avg Daily Amt (lbs) | Above Ground Tank | Ambient Pressure | Ambient temperature | ☐ T-15-11 |
| ☐ EHS | ☒ Immediate (Acute) | 07 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | | ☐ |
| ☐ Identical to previous year: | | | | Container Type | Pressure | Temperature | Storage Location |
| CAS Number: | ☐ Fire | 160,000 | Max Daily Amt (lbs) | Above Ground Tank | Ambient Pressure | Ambient temperature | ☐ T24, T4 |
| Chemical Name: 15% Bottoms | ☐ Pressure | 10 | Max Daily Amt Code | | | | ☐ |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 150,000 | Avg Daily Amt (lbs) | | | | ☐ |
| ☐ EHS | ☒ Immediate (Acute) | 10 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | | ☐ |
| ☐ Identical to previous year: | | | | Container Type | Pressure | Temperature | Storage Location |
| CAS Number: 57-13-6 | ☐ Fire | 88,000 | Max Daily Amt (lbs) | Above Ground Tank | Ambient Pressure | Ambient temperature | ☐ T-300 |
| Chemical Name: 28-0-0 UAN Solution | ☐ Pressure | 09 | Max Daily Amt Code | | | | ☐ |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 50,000 | Avg Daily Amt (lbs) | | | | ☐ |
| ☐ EHS | ☒ Immediate (Acute) | 08 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | | ☐ |
| ☐ Identical to previous year: | | | | Container Type | Pressure | Temperature | Storage Location |
| CAS Number: 64-19-7 | ☒ Fire | 220,000 | Max Daily Amt (lbs) | Above ground tank | Ambient pressure | Ambient temperature | ☐ T-217 and T-215 |
| Chemical Name: ACETIC ACID | ☐ Pressure | 10 | Max Daily Amt Code | Tote Bin | Ambient Pressure | Ambient temperature | ☐ Morten Building |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 31,000 | Avg Daily Amt (lbs) | | | | ☐ |
| ☐ EHS | ☒ Immediate (Acute) | 07 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | | ☐ |

Anthony Stone
Signature

02-25-2016
Date

Attachment 17 Page 2 of 11

| Chemical Description | Physical & Health Hazards | Inventory | | Storage Codes & Location (Check ☐ if Confidential) | | | |
|---|---|---|---|---|---|---|---|
| | | | | Container Type | Pressure | Temperature | Storage Location |
| ☐ Identical to previous year:<br>CAS Number: 7664-41-7<br>Chemical Name: AMMONIA, ANHYDROUS<br>Trade Secret ☐ If checked Sanitized Name:<br>☒ EHS<br>☐ Contains EHS If checked EHS Name: Ammonia<br>☒ Pure ☐ Mix ☐ Solid ☒ Liquid ☐ Gas | ☐ Fire<br>☒ Pressure<br>☐ Reactivity<br>☒ Immediate (Acute)<br>☒ Delayed (Chronic) | 280,000 Max Daily Amt (lbs)<br>10 Max Daily Amt Code<br>150,000 Avg Daily Amt (lbs)<br>10 Avg Daily Amt Code<br>365 No. of days on site | | Above ground tank | Greater than ambient pressure | Ambient temperature | ☐ T-301 |
| ☐ Identical to previous year:<br>CAS Number: 12125-02-9<br>Chemical Name: AMMONIUM CHLORIDE<br>Trade Secret ☐ If checked Sanitized Name:<br>☐ EHS<br>☐ Contains EHS If checked EHS Name:<br>☒ Pure ☐ Mix ☒ Solid ☐ Liquid ☐ Gas | ☐ Fire<br>☐ Pressure<br>☐ Reactivity<br>☒ Immediate (Acute)<br>☐ Delayed (Chronic) | 840,000 Max Daily Amt (lbs)<br>11 Max Daily Amt Code<br>690,000 Avg Daily Amt (lbs)<br>11 Avg Daily Amt Code<br>365 No. of days on site | | Bag | Ambient Pressure | Ambient temperature | ☐ Morton, Main Building, and Granulation Building |
| ☐ Identical to previous year:<br>CAS Number:<br>Chemical Name: AMMONIUM NITRATE SOLUTION<br>Trade Secret ☐ If checked Sanitized Name:<br>☐ EHS<br>☐ Contains EHS If checked EHS Name:<br>☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas | ☐ Fire<br>☐ Pressure<br>☐ Reactivity<br>☒ Immediate (Acute)<br>☐ Delayed (Chronic) | 260,000 Max Daily Amt (lbs)<br>10 Max Daily Amt Code<br>200,000 Avg Daily Amt (lbs)<br>10 Avg Daily Amt Code<br>365 No. of days on site | | Above Ground Tank | Ambient Pressure | Ambient temperature | ☐ T-300 and T-90 |
| ☐ Identical to previous year:<br>CAS Number: 7727-54-0<br>Chemical Name: Ammonium Persulfate<br>Trade Secret ☐ If checked Sanitized Name:<br>☐ EHS<br>☐ Contains EHS If checked EHS Name:<br>☒ Pure ☐ Mix ☒ Solid ☐ Liquid ☐ Gas | ☒ Fire<br>☐ Pressure<br>☐ Reactivity<br>☒ Immediate (Acute)<br>☐ Delayed (Chronic) | 47,000 Max Daily Amt (lbs)<br>07 Max Daily Amt Code<br>14,000 Avg Daily Amt (lbs)<br>06 Avg Daily Amt Code<br>365 No. of days on site | | Bag | Ambient Pressure | Ambient temperature | ☐ Morten Building |

Signature

02-25-2016
Date

Attachment 17 Page 3 of 11

| Chemical Description | Physical & Health Hazards | Inventory | Storage Codes & Location (Check ☐ if Confidential) | | | |
|---|---|---|---|---|---|---|
| | | | Container Type | Pressure | Temperature | Storage Location |
| Identical to previous year: ☐ | | | | | | |
| CAS Number: 68333-79-9 | ☐ Fire | 90,000 Max Daily Amt (lbs) | Above Ground Tank | Ambient Pressure | Ambient temperature | ☐ T500, T503 |
| Chemical Name: Ammonium Polyphosphate (10-34-0) | ☐ Pressure | 09 Max Daily Amt Code | | | | ☐ |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 49,000 Avg Daily Amt (lbs) | | | | ☐ |
| ☐ EHS | ☒ Immediate (Acute) | 07 Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 No. of days on site | | | | ☐ |
| | | | | | | ☐ |
| ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | ☐ |
| Identical to previous year: ☐ | | | Container Type | Pressure | Temperature | Storage Location |
| CAS Number: 7783-18-8 | ☐ Fire | 2,800,000 Max Daily Amt (lbs) | Above Ground Tank | Ambient Pressure | Ambient temperature | ☐ Tanks T-500, T-501, T-215, and T-20 |
| Chemical Name: AMMONIUM THIOSULFATE | ☐ Pressure | 12 Max Daily Amt Code | Rail Car | Ambient Pressure | Ambient temperature | ☐ South Tracks |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 1,700,000 Avg Daily Amt (lbs) | | | | ☐ |
| ☐ EHS | ☒ Immediate (Acute) | 12 Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 No. of days on site | | | | ☐ |
| | | | | | | ☐ |
| ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | ☐ |
| Identical to previous year: ☐ | | | Container Type | Pressure | Temperature | Storage Location |
| CAS Number: 1336-21-6 | ☐ Fire | 390,000 Max Daily Amt (lbs) | Above ground tank | Ambient pressure | Ambient temperature | ☐ T-210 and T-26 |
| Chemical Name: AQUA AMMONIA | ☐ Pressure | 10 Max Daily Amt Code | | | | ☐ |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 42,000 Avg Daily Amt (lbs) | | | | ☐ |
| ☐ EHS | ☒ Immediate (Acute) | 07 Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 No. of days on site | | | | ☐ |
| | | | | | | ☐ |
| ☒ Pure ☐ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | ☐ |
| Identical to previous year: ☐ | | | Container Type | Pressure | Temperature | Storage Location |
| CAS Number: | ☐ Fire | 43,000 Max Daily Amt (lbs) | Above Ground Tank | Ambient Pressure | Ambient temperature | ☐ T-15-5 |
| Chemical Name: BlueZone Micro Premix | ☐ Pressure | 07 Max Daily Amt Code | | | | ☐ |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 14,000 Avg Daily Amt (lbs) | | | | ☐ |
| ☐ EHS | ☒ Immediate (Acute) | 06 Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 No. of days on site | | | | ☐ |
| | | | | | | ☐ |
| ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | ☐ |

Anthony Thomas
Signature

02-25-2016
Date

Attachment 17 Page 4 of 11

| Chemical Description | Physical & Health Hazards | Inventory | | Storage Codes & Location (Check ☐ if Confidential) | | | |
|---|---|---|---|---|---|---|---|
| | | | | Container Type | Pressure | Temperature | Storage Location |
| ☐ Identical to previous year: | | | | | | | |
| CAS Number: | ☐ Fire | 103,000 | Max Daily Amt (lbs) | Plastic Bottles or Jugs | Ambient Pressure | Ambient temperature | ☐ Morten Building |
| Chemical Name: Citri-Chelated Zinc 10% Soultion | ☐ Pressure | 10 | Max Daily Amt Code | Tote Bin | Ambient Pressure | Ambient temperature | ☐ Morten Building |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 103,000 | Avg Daily Amt (lbs) | Above Ground Tank | Ambient Pressure | Ambient temperature | ☐ T-211,T-15-4, T39001, T19007, T19003, T19000 |
| ☐ EHS | ☒ Immediate (Acute) | 10 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | | ☐ |
| ☐ Identical to previous year: | | | | Container Type | Pressure | Temperature | Storage Location |
| CAS Number: 77-92-9 | ☐ Fire | 87,000 | Max Daily Amt (lbs) | Bag | Ambient Pressure | Ambient temperature | ☐ Main Building |
| Chemical Name: CITRIC ACID | ☐ Pressure | 09 | Max Daily Amt Code | | | | ☐ |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 55,000 | Avg Daily Amt (lbs) | | | | ☐ |
| ☐ EHS | ☒ Immediate (Acute) | 08 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☒ Pure ☐ Mix ☒ Solid ☐ Liquid ☐ Gas | | | | | | | ☐ |
| ☐ Identical to previous year: | | | | Container Type | Pressure | Temperature | Storage Location |
| CAS Number: | ☐ Fire | 54,000 | Max Daily Amt (lbs) | Above Ground Tank | Ambient Pressure | Ambient temperature | ☐ T-15-10 |
| Chemical Name: Copper 7.5% EDTA | ☐ Pressure | 08 | Max Daily Amt Code | Tote Bin | Ambient Pressure | Ambient temperature | ☐ Packaging plant |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 50,000 | Avg Daily Amt (lbs) | Plastic Bottles or Jugs | Ambient Pressure | Ambient temperature | ☐ Packaging plant |
| ☐ EHS | ☒ Immediate (Acute) | 08 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | | ☐ |
| ☐ Identical to previous year: | | | | Container Type | Pressure | Temperature | Storage Location |
| CAS Number: | ☐ Fire | 38,000 | Max Daily Amt (lbs) | Bag | Ambient Pressure | Ambient temperature | ☐ Morten Building |
| Chemical Name: Di-Sodium EDTA | ☐ Pressure | 07 | Max Daily Amt Code | | | | ☐ |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 38,000 | Avg Daily Amt (lbs) | | | | ☐ |
| ☐ EHS | ☒ Immediate (Acute) | 07 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☐ Pure ☒ Mix ☒ Solid ☐ Liquid ☐ Gas | | | | | | | ☐ |

Anthony Noonan
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| Chemical Description | Physical & Health Hazards | Inventory | | Storage Codes & Location (Check ☐ if Confidential) | | | |
|---|---|---|---|---|---|---|---|
| | | | | Container Type | Pressure | Temperature | Storage Location |
| Identical to previous year: ☐ | | | | | | | |
| CAS Number: | ☐ Fire | 3,400,000 | Max Daily Amt (lbs) | Above Ground Tank | Ambient Pressure | Ambient temperature | ☐ T50 |
| Chemical Name: Diamond Fertilizer 3-18-18 | ☐ Pressure | 12 | Max Daily Amt Code | | | | ☐ |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 1,600,000 | Avg Daily Amt (lbs) | | | | ☐ |
| ☐ EHS | ☒ Immediate (Acute) | 12 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | | ☐ |
| Identical to previous year: ☐ | | | | Container Type | Pressure | Temperature | Storage Location |
| CAS Number: | ☐ Fire | 2,600,000 | Max Daily Amt (lbs) | Above Ground Tank | Ambient Pressure | Ambient temperature | ☐ T51 |
| Chemical Name: Diamond Fertilizer 9-18-9 | ☐ Pressure | 12 | Max Daily Amt Code | | | | ☐ |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 2,400,000 | Avg Daily Amt (lbs) | | | | ☐ |
| ☐ EHS | ☒ Immediate (Acute) | 12 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | | ☐ |
| Identical to previous year: ☐ | | | | Container Type | Pressure | Temperature | Storage Location |
| CAS Number: | ☐ Fire | 170,000 | Max Daily Amt (lbs) | Bag | Ambient Pressure | Ambient temperature | ☐ Morten |
| Chemical Name: DIATOMACEOUS EARTH | ☐ Pressure | 10 | Max Daily Amt Code | | | | ☐ |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 120,000 | Avg Daily Amt (lbs) | | | | ☐ |
| ☐ EHS | ☒ Immediate (Acute) | 10 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☒ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☐ Pure ☒ Mix ☒ Solid ☐ Liquid ☐ Gas | | | | | | | ☐ |
| Identical to previous year: ☐ | | | | Container Type | Pressure | Temperature | Storage Location |
| CAS Number: 10378-23-1 | ☐ Fire | 200,000 | Max Daily Amt (lbs) | Bag | Ambient Pressure | Ambient temperature | ☐ Morten Building |
| Chemical Name: EDTA Acid | ☐ Pressure | 10 | Max Daily Amt Code | | | | ☐ |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 55,000 | Avg Daily Amt (lbs) | | | | ☐ |
| ☐ EHS | ☒ Immediate (Acute) | 08 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☒ Pure ☐ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | | ☐ |

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| Chemical Description | Physical & Health Hazards | Inventory | | Storage Codes & Location (Check ☐ if Confidential) | | | |
|---|---|---|---|---|---|---|---|
| | | | | Container Type | Pressure | Temperature | Storage Location |
| Identical to previous year: ☐ | | | | | | | |
| CAS Number: | ☐ Fire | 4,100,000 | Max Daily Amt (lbs) | Above Ground Tank | Ambient Pressure | Ambient temperature | ☐ T8, T23, T3, T10, T6, T7 |
| Chemical Name: Filtrate 4% | ☐ Pressure | 12 | Max Daily Amt Code | | | | ☐ |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 4,000,000 | Avg Daily Amt (lbs) | | | | ☐ |
| ☐ EHS | ☒ Immediate (Acute) | 12 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | | ☐ |
| Identical to previous year: ☐ | | | | Container Type | Pressure | Temperature | Storage Location |
| CAS Number: | ☐ Fire | 39,000 | Max Daily Amt (lbs) | Above Ground Tank | Ambient Pressure | Ambient temperature | ☐ T-15-8 |
| Chemical Name: Managanese 6% EDTA | ☐ Pressure | 07 | Max Daily Amt Code | Plastic Bottles or Jugs | Ambient Pressure | Ambient temperature | ☐ Packaging Plant |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 32,000 | Avg Daily Amt (lbs) | Tote Bin | Ambient Pressure | Ambient temperature | ☐ Packaging Plant |
| ☐ EHS | ☒ Immediate (Acute) | 07 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | | ☐ |
| Identical to previous year: ☐ | | | | Container Type | Pressure | Temperature | Storage Location |
| CAS Number: | ☐ Fire | 500,000 | Max Daily Amt (lbs) | Above Ground Tank | Ambient Pressure | Ambient temperature | ☐ T-15-1, T-20, T-61 |
| Chemical Name: MicroSol Citric Chelated 10% Zinc | ☐ Pressure | 11 | Max Daily Amt Code | Plastic Bottles or Jugs | Ambient Pressure | Ambient temperature | ☐ Morten Building |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 490,000 | Avg Daily Amt (lbs) | Tote Bin | Ambient Pressure | Ambient temperature | ☐ Morten Building |
| ☐ EHS | ☒ Immediate (Acute) | 10 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | | ☐ |
| Identical to previous year: ☐ | | | | Container Type | Pressure | Temperature | Storage Location |
| CAS Number: | ☐ Fire | 150,000 | Max Daily Amt (lbs) | Tote Bin | Ambient Pressure | Ambient temperature | ☐ Morten Building |
| Chemical Name: Nuflux | ☐ Pressure | 10 | Max Daily Amt Code | Above Ground Tank | Ambient Pressure | Ambient temperature | ☐ T-60 |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 140,000 | Avg Daily Amt (lbs) | | | | ☐ |
| ☐ EHS | ☒ Immediate (Acute) | 10 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | | ☐ |

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| Chemical Description | Physical & Health Hazards | Inventory | | Storage Codes & Location (Check ☐ if Confidential) | | | |
|---|---|---|---|---|---|---|---|
| Identical to previous year: ☐ | | | | Container Type | Pressure | Temperature | Storage Location |
| CAS Number: 7664-38-2 | ☐ Fire | 670,000 | Max Daily Amt (lbs) | Above Ground Tank | Ambient Pressure | Ambient temperature | ☐ T-204, T-216, T-722, and T-726 |
| Chemical Name: Phosphoric White Acid | ☐ Pressure | 11 | Max Daily Amt Code | Rail Car | Ambient Pressure | Ambient temperature | ☐ South Tracks |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 180,000 | Avg Daily Amt (lbs) | Tote Bin | Ambient Pressure | Ambient temperature | ☐ Morten Building |
| ☐ EHS | ☒ Immediate (Acute) | 10 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | | ☐ |
| Identical to previous year: ☐ | | | | Container Type | Pressure | Temperature | Storage Location |
| CAS Number: 1310-58-3 | ☐ Fire | 620,000 | Max Daily Amt (lbs) | Above ground tank | Ambient pressure | Ambient temperature | ☐ Tanks T-724 and T-725 |
| Chemical Name: POTASSIUM HYDROXIDE | ☐ Pressure | 11 | Max Daily Amt Code | Rail car | Ambient pressure | Ambient temperature | ☐ South Tracks |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 230,000 | Avg Daily Amt (lbs) | | | | ☐ |
| ☐ EHS | ☒ Immediate (Acute) | 10 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | | ☐ |
| Identical to previous year: ☐ | | | | Container Type | Pressure | Temperature | Storage Location |
| CAS Number: | ☐ Fire | 13,000 | Max Daily Amt (lbs) | Above Ground Tank | Ambient Pressure | Ambient temperature | ☐ Polly A, Polly B |
| Chemical Name: Rust Resister | ☐ Pressure | 06 | Max Daily Amt Code | Tote Bin | Ambient Pressure | Ambient temperature | ☐ Packaging Plant |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 11,000 | Avg Daily Amt (lbs) | Plastic Bottles or Jugs | Ambient Pressure | Ambient temperature | ☐ Packaging Plant |
| ☐ EHS | ☒ Immediate (Acute) | 06 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☒ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | | ☐ |
| Identical to previous year: ☐ | | | | Container Type | Pressure | Temperature | Storage Location |
| CAS Number: 16721-80-5 | ☒ Fire | 110,000 | Max Daily Amt (lbs) | Above ground tank | Ambient pressure | Ambient temperature | ☐ T-960 |
| Chemical Name: SODIUM HYDROSULFIDE | ☐ Pressure | 10 | Max Daily Amt Code | Tank Wagon | Ambient Pressure | Ambient temperature | ☐ Unloading area near entrance |
| Trade Secret ☐ If checked Sanitized Name: | ☒ Reactivity | 97,000 | Avg Daily Amt (lbs) | | | | ☐ |
| ☐ EHS | ☒ Immediate (Acute) | 09 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | | ☐ |

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| Chemical Description | Physical & Health Hazards | Inventory | Storage Codes & Location (Check ☐ if Confidential) |
|---|---|---|---|

**Chemical 1**

Identical to previous year: ☐
CAS Number: 1310-73-2
Chemical Name: SODIUM HYDROXIDE
Trade Secret ☐ If checked Sanitized Name:
☐ EHS
☐ Contains EHS If checked EHS Name:
☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas

☐ Fire
☐ Pressure
☐ Reactivity
☒ Immediate (Acute)
☐ Delayed (Chronic)

| | |
|---|---|
| 3,600,000 | Max Daily Amt (lbs) |
| 12 | Max Daily Amt Code |
| 1,700,000 | Avg Daily Amt (lbs) |
| 12 | Avg Daily Amt Code |
| 365 | No. of days on site |

| Container Type | Pressure | Temperature | Storage Location |
|---|---|---|---|
| Above Ground Tank | Ambient Pressure | Ambient temperature | ☐ Tanks T-721 and T-723 |
| Rail Car | Ambient Pressure | Ambient temperature | ☐ South Tracks |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |

**Chemical 2**

Identical to previous year: ☐
CAS Number: 7664-93-9
Chemical Name: SULFURIC ACID
Trade Secret ☐ If checked Sanitized Name:
☒ EHS
☐ Contains EHS If checked EHS Name: SULFURIC ACID
☒ Pure ☐ Mix ☐ Solid ☒ Liquid ☐ Gas

☐ Fire
☐ Pressure
☐ Reactivity
☒ Immediate (Acute)
☒ Delayed (Chronic)

| | |
|---|---|
| 20,000 | Max Daily Amt (lbs) |
| 06 | Max Daily Amt Code |
| 20,000 | Avg Daily Amt (lbs) |
| 06 | Avg Daily Amt Code |
| 365 | No. of days on site |

| Container Type | Pressure | Temperature | Storage Location |
|---|---|---|---|
| Rail car | Ambient pressure | Ambient temperature | ☐ South Tracks |
| Above ground tank | Ambient Pressure | Ambient temperature | ☐ Tanks T-201, T-205, T-208 |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |

**Chemical 3**

Identical to previous year: ☐
CAS Number:
Chemical Name: Till-It Blue-Zone Ultra 6-24-6 (GoldStart)
Trade Secret ☐ If checked Sanitized Name:
☐ EHS
☐ Contains EHS If checked EHS Name:
☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas

☐ Fire
☐ Pressure
☐ Reactivity
☒ Immediate (Acute)
☐ Delayed (Chronic)

| | |
|---|---|
| 17,000,000 | Max Daily Amt (lbs) |
| 13 | Max Daily Amt Code |
| 13,000,000 | Avg Daily Amt (lbs) |
| 13 | Avg Daily Amt Code |
| 365 | No. of days on site |

| Container Type | Pressure | Temperature | Storage Location |
|---|---|---|---|
| Tank Inside Building | Ambient Pressure | Ambient temperature | ☐ Morten Building |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |

**Chemical 4**

Identical to previous year: ☐
CAS Number: 57-13-6
Chemical Name: Urea 50%
Trade Secret ☐ If checked Sanitized Name:
☐ EHS
☐ Contains EHS If checked EHS Name:
☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas

☐ Fire
☐ Pressure
☐ Reactivity
☒ Immediate (Acute)
☐ Delayed (Chronic)

| | |
|---|---|
| 150,000 | Max Daily Amt (lbs) |
| 10 | Max Daily Amt Code |
| 110,000 | Avg Daily Amt (lbs) |
| 10 | Avg Daily Amt Code |
| 365 | No. of days on site |

| Container Type | Pressure | Temperature | Storage Location |
|---|---|---|---|
| Above Ground Tank | Ambient Pressure | Ambient temperature | ☐ T-86, T-500, T-501, and T-503 |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |

Anthony Shore
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| Chemical Description | Physical & Health Hazards | Inventory | | Storage Codes & Location (Check ☐ if Confidential) | | | |
|---|---|---|---|---|---|---|---|
| | | | | Container Type | Pressure | Temperature | Storage Location |
| Identical to previous year: ☐ | | | | | | | |
| CAS Number: | ☐ Fire | 2,800,000 | Max Daily Amt (lbs) | Plastic Drum or Non-Metallic | Ambient Pressure | Ambient temperature | ☐ Main building |
| Chemical Name: Various dry fertilizer blends | ☐ Pressure | 12 | Max Daily Amt Code | Plastic Drum or Non-Metallic | Ambient Pressure | Ambient temperature | ☐ Morten building |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 2,500,000 | Avg Daily Amt (lbs) | | | | ☐ |
| ☐ EHS | ☒ Immediate (Acute) | 12 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☐ Pure ☒ Mix ☒ Solid ☐ Liquid ☐ Gas | | | | | | | ☐ |
| Identical to previous year: ☐ | | | | Container Type | Pressure | Temperature | Storage Location |
| CAS Number: | ☐ Fire | 3,600,000 | Max Daily Amt (lbs) | Above Ground Tank | Ambient Pressure | Ambient temperature | ☐ T-54, T-63, T-212, T-222, T-15-7, T-15-2, T16, T17, T18, T-55 |
| Chemical Name: Various liquid fertilizer blends | ☐ Pressure | 12 | Max Daily Amt Code | Tote Bin | Ambient Pressure | Ambient temperature | ☐ Packaging plant |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 2,800,000 | Avg Daily Amt (lbs) | Plastic Bottles or Jugs | Ambient Pressure | Ambient temperature | ☐ Packaging plant |
| ☐ EHS | ☒ Immediate (Acute) | 12 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☒ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | | ☐ |
| Identical to previous year: ☐ | | | | Container Type | Pressure | Temperature | Storage Location |
| CAS Number: | ☐ Fire | 29,000 | Max Daily Amt (lbs) | Tote Bin | Ambient Pressure | Ambient temperature | ☐ Morten Building |
| Chemical Name: Versatile-IDS 5% Copper Chel | ☐ Pressure | 07 | Max Daily Amt Code | | | | ☐ |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 18,000 | Avg Daily Amt (lbs) | | | | ☐ |
| ☐ EHS | ☒ Immediate (Acute) | 06 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☒ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | | ☐ |
| Identical to previous year: ☐ | | | | Container Type | Pressure | Temperature | Storage Location |
| CAS Number: | ☐ Fire | 1,000,000 | Max Daily Amt (lbs) | Plastic Drum or Non-Metallic | Ambient Pressure | Ambient temperature | ☐ Main building, Morten Building |
| Chemical Name: Wet Skims (zinc containing solids) | ☐ Pressure | 12 | Max Daily Amt Code | | | | ☐ |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 870,000 | Avg Daily Amt (lbs) | | | | ☐ |
| ☐ EHS | ☐ Immediate (Acute) | 11 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☒ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☐ Pure ☒ Mix ☒ Solid ☐ Liquid ☐ Gas | | | | | | | ☐ |

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| Chemical Description | Physical & Health Hazards | Inventory | | Storage Codes & Location (Check ☐ if Confidential) | | | |
|---|---|---|---|---|---|---|---|
| | | | | Container Type | Pressure | Temperature | Storage Location |
| Identical to previous year: ☐ | | | | | | | |
| CAS Number: | ☐ Fire | 810,000 | Max Daily Amt (lbs) | Above Ground Tank | Ambient Pressure | Ambient temperature | ☐ 19004, T210, T214 |
| Chemical Name: Zinc 6% EDTA | ☐ Pressure | 11 | Max Daily Amt Code | Plastic Bottles or Jugs | Ambient Pressure | Ambient temperature | ☐ Packaging plant |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 630,000 | Avg Daily Amt (lbs) | Tote Bin | Ambient Pressure | Ambient temperature | ☐ Packaging plant |
| ☐ EHS | ☒ Immediate (Acute) | 11 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | | ☐ |
| Identical to previous year: ☐ | | | | Container Type | Pressure | Temperature | Storage Location |
| CAS Number: | ☐ Fire | 440,000 | Max Daily Amt (lbs) | Above Ground Tank | Ambient Pressure | Ambient temperature | ☐ T62, T63, T-15-1 |
| Chemical Name: Zinc 9% EDTA | ☐ Pressure | 10 | Max Daily Amt Code | Tote Bin | Ambient Pressure | Ambient temperature | ☐ Packaging plant |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 360,000 | Avg Daily Amt (lbs) | Plastic Bottles or Jugs | Ambient Pressure | Ambient temperature | ☐ Packaging plant |
| ☐ EHS | ☒ Immediate (Acute) | 10 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | | ☐ |
| Identical to previous year: ☐ | | | | Container Type | Pressure | Temperature | Storage Location |
| CAS Number: 7646-85-7 | ☐ Fire | 80,000 | Max Daily Amt (lbs) | Above Ground Tank | Ambient pressure | Ambient temperature | ☐ Tank T-203 and T-61 |
| Chemical Name: ZINC CHLORIDE | ☐ Pressure | 09 | Max Daily Amt Code | Tote Bin | Ambient Pressure | Ambient temperature | ☐ Morten Building |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 37,000 | Avg Daily Amt (lbs) | | | | ☐ |
| ☐ EHS | ☒ Immediate (Acute) | 07 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☒ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas | | | | | | | ☐ |
| Identical to previous year: ☐ | | | | Container Type | Pressure | Temperature | Storage Location |
| CAS Number: 1314-13-2 | ☐ Fire | 270,000 | Max Daily Amt (lbs) | Bag | Ambient Pressure | Ambient temperature | ☐ Morten Building |
| Chemical Name: Zinc Oxide | ☐ Pressure | 10 | Max Daily Amt Code | | | | ☐ |
| Trade Secret ☐ If checked Sanitized Name: | ☐ Reactivity | 150,000 | Avg Daily Amt (lbs) | | | | ☐ |
| ☐ EHS | ☒ Immediate (Acute) | 10 | Avg Daily Amt Code | | | | ☐ |
| ☐ Contains EHS If checked EHS Name: | ☐ Delayed (Chronic) | 365 | No. of days on site | | | | ☐ |
| | | | | | | | ☐ |
| ☒ Pure ☐ Mix ☒ Solid ☐ Liquid ☐ Gas | | | | | | | ☐ |

Anthony Alcorn
Signature

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# Tier I Qualified Facility SPCC Plan

This template constitutes the SPCC Plan for the facility, when completed and signed by the owner or operator of a facility that meets the applicability criteria in §112.3(g)(1). This template addresses the requirements of 40 CFR part 112. Maintain a complete copy of the Plan at the facility if the facility is normally attended at least four hours per day, or for a facility attended fewer than four hours per day, at the nearest field office. When making operational changes at a facility that are necessary to comply with the rule requirements, the owner/operator should follow state and local requirements (such as for permitting, design and construction) and obtain professional assistance, as appropriate.

**Facility Description**

Facility Name: The Andersons – Sergeant Bluff Facility

Facility Address: 2717 Port Neal Circle

City: Sergeant Bluff State: Iowa ZIP: 51054

County: Woodbury Tel. Number: ( 712 ) 943 - 3983

Owner or Operator Name: The Andersons

Owner or Operator Address: 200 South Derby Lane

City: North Sioux City State: South Dakota ZIP: 57049

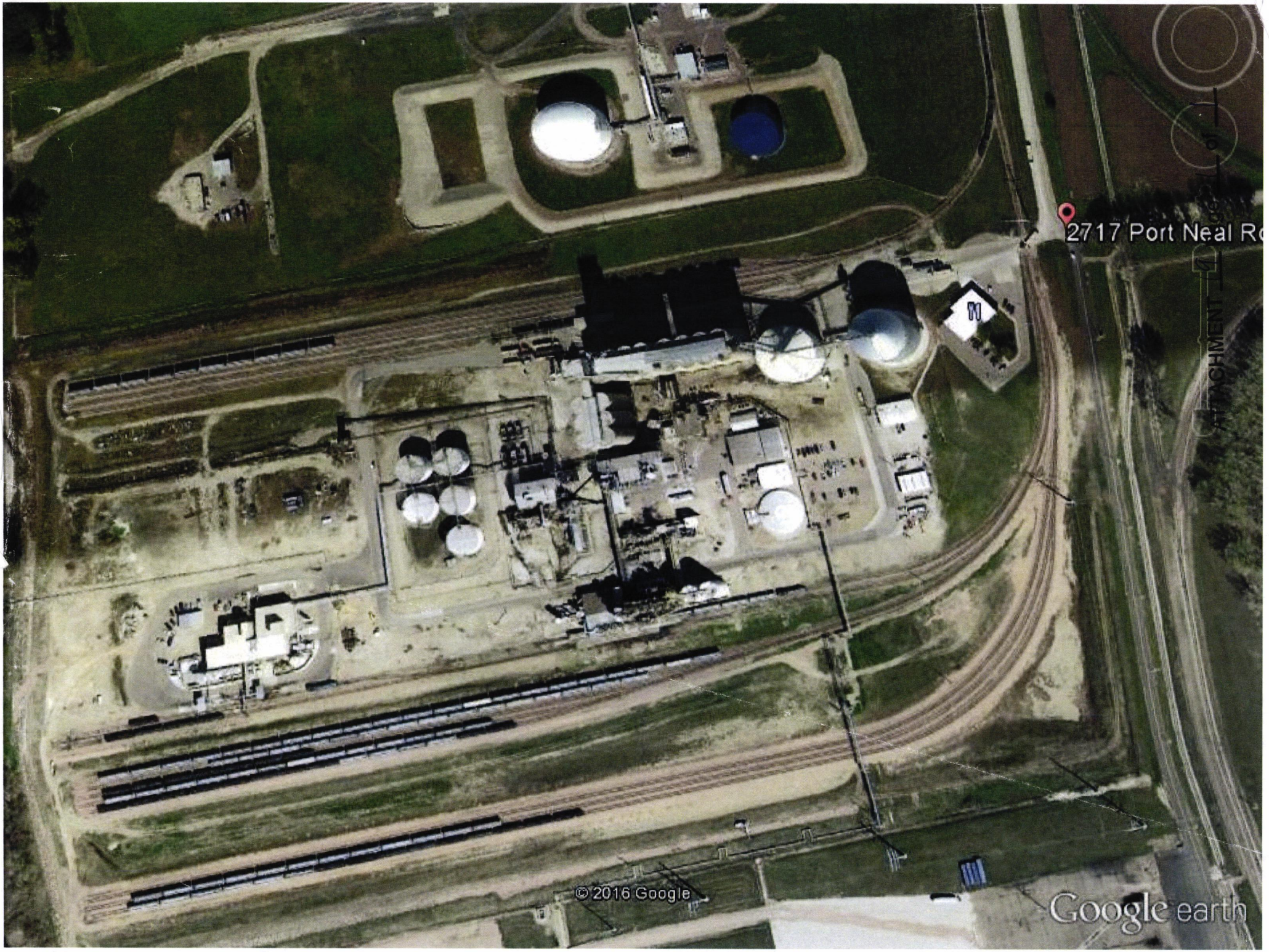
County: Union Tel. Number: ( 605 ) 217 - 2011

**I. Self-Certification Statement (§112.6(a)(1))**

The owner or operator of a facility certifies that each of the following is true in order to utilize this template to comply with the SPCC requirements:

I Shawn Turner certify that the following is accurate:

1. I am familiar with the applicable requirements of 40 CFR part 112;
2. I have visited and examined the facility;
3. This Plan was prepared in accordance with accepted and sound industry practices and standards;
4. Procedures for required inspections and testing have been established in accordance with industry inspection and testing standards or recommended practices;
5. I will fully implement the Plan;
6. This facility meets the following qualification criteria (under §112.3(g)(1)):
   a. The aggregate aboveground oil storage capacity of the facility is 10,000 U.S. gallons or less; and
   b. The facility has had no single discharge as described in §112.1(b) exceeding 1,000 U.S. gallons and no two discharges as described in §112.1(b) each exceeding 42 U.S. gallons within any twelve month period in the three years prior to the SPCC Plan self-certification date, or since becoming subject to 40 CFR part 112 if the facility has been in operation for less than three years (not including oil discharges as described in §112.1(b) that are the result of natural disasters, acts of war, or terrorism); and
   c. There is no individual oil storage container at the facility with an aboveground capacity greater than 5,000 U.S. gallons.
7. This Plan does not deviate from any requirement of 40 CFR part 112 as allowed by §112.7(a)(2) (environmental equivalence) and §112.7(d) (impracticability of secondary containment) or include any measures pursuant to §112.9(c)(6) for produced water containers and any associated piping;
8. This Plan and individual(s) responsible for implementing this Plan have the full approval of management and I have committed the necessary resources to fully implement this Plan.


2717 Port Neal Rd
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# RECORD CONTROL CHECK SHEET

**Media**

| Air | RCRA | Water | Other |
|---|---|---|---|
| | X | | |

**Date of Inspection** 08/03/2016

**Activity Number** 3724

**Facility ID Number** IAR000007310

**Facility Name and Address** ANDERSONS SERGEANT BLUFF PLANT
2717 PORT NEAL CIRCLE
SERGEANT BLUFF, IOWA 57049

The following documents pertaining to this activity are contained in the package:

| Document | | Yes | No | NA |
|---|---|---|---|---|
| Final Report with attachments | 100 Pages | (X) | ( ) | ( ) |
| Field sheets | — Pages | ( ) | ( ) | (X) |
| Chain of Custody | — Pages | ( ) | ( ) | (X) |
| Analytical data sheets | — Pages | ( ) | ( ) | (X) |
| Pre-inspection documents | — Pages | ( ) | ( ) | (X) |
| Photographic negatives (if applicable) | — Pages | ( ) | ( ) | (X) |
| Photographs (not included in this report) | — Pages | ( ) | ( ) | (X) |
| CD-ROM containing 4 photos/videos | 1 CD-ROM | (X) | ( ) | ( ) |
| Field notebook w/ — pages used | — Notebook | ( ) | ( ) | (X) |
| Other documents (list below) | | | | |
| FIELD NOTES | 1 Pages | | | |
| — | — Pages | | | |
| — | — Pages | | | |
| — | — Pages | | | |

(Note: If additional space is needed to list specific documents, utilize reverse side)

## CERTIFICATION

I, the undersigned, certify that all of the documents pertaining to this activity that were in my possession have been listed above and were included in this package at the time this statement was signed.

Clifford A. Nelles 09/28/2016
Activity Leader's Signature and Date

Andersons 08/03/2016 0750-0755
Shawn Turner was not here at the start 8:30
Melody Reese by phone
~~Phil Jackson~~ Rick Jackson
Mark Braunderether, Tracy Morris
Matt Anderson intern
1989 18 28 acres
0600-1700 M-F
fertilizer manufactures - zinc based and NPK phosphate fertilizer
zinc, phosphate, potassium Hydroxide, anhydrous ammonia.
maintenance shop
May 2015 purchased by andersons
Jan 10, 2015
3, 5, 6, 1 2-14-15 — 10-14

6-24-15 5-28, 5-28, 5-26, 5-26, 10-14, 10-14, 10-14, 6-8, 6-4, 6-3, 6-2, 6-1,
2-20, 2-14, 2-16, 2-18,